

No. 451. MAR 20 1916



JAMAICA WEATHER REPORT

FOR THE MONTH OF
JANUARY, 1916.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky ; the Lower clouds are for the most part *fracto-stratus*; the Middle clouds, *cumulus*; and the Upper clouds, *cirro-stratus*.

METEOROLOGICAL RESULTS.

[illegible][illegible]

* and on other days.

† Negril Point Light House.

** Bavinton, Stony Hill.

† Hope Gardens. Bar. read at 9 a.m. and 3 p.m.

Wind 11 p.m.

N.E. 9.8

Mean Min. temp. on grass 60°7,

Plumb Point Light House	{ Average No. of Miles of wind per diem
	{ Greatest on the 6th
	{ Least on the 29th

167

227

97

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	JAN., 1916.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount	Date.		
	In.	In.			In.
Manchioneal	2.53	1.00	21	8	5.94
Spring Valley, Portland	3.71	0.90	21	11	
Bath	3.43	0.52	27	15	6.26
Boston	1.89	0.44	21	10	9.50
Moore Town	19.52	6.00	10	12	18.55
Port Antonio	3.63	0.52	8	11	9.10
Fellowship	7.17	0.91	28	24	14.16
Johnson River Bridge	1.05	0.27	16	14	3.59
Shrewsbury	14.44	0.22	15	20	20.02
Cedar Valley, St. Thos.	0.35	0.15	28	3	4.46
Hope Bay	4.65	0.75	21	21	
Moy Hall, St. Thos.	1.72	0.80	17	6	3.46
Brooklodge	1.01	0.35	28	9	
Lennox					
Farm Hill	8.82	1.90	20	8	6.79
Hill Gardens					
Buff Bay	5.54	1.10	5	13	10.22
Vinery	17.67	4.65	4	17	
Windsor Castle, Port.	4.07	1.90	15	9	
Greenvale, Portland	28.42	3.60	19	23	
Mt. Holstein	20.57	3.58	18	28	14.03
Irish Town	0.64	0.64	16	1	2.49
Rose Hill	2.41	1.00	20	5	
Hardware Gap	6.50				4.95
Stony Hill Ind. School	1.02	0.36	20	5	3.30
Castleton Gardens					
Lawrence Tavern	2.51	0.80	5	6	1.95
Cedar Valley, Red Hills					
Carew Castle	1.35	0.40	27	7	2.60
Agualta Vale	9.46	3.90	5		
Water Valley	5.31	2.00	5	16	7.90
Albany, Ry. Station					
Platfield	4.56	0.92	4	16	
Richmond, St. Mary	20.48	10.72	4	20	6.18
Highgate*	28.54	13.98	5	17	
Hampstead, St. Mary	11.65	2.20	5	26	
Troja	6.93	2.05	4	12	
Guy's Hill	10.08	3.52	4	14	
Lucky Hill	18.27	6.80	5	20	
Rio Hoe	11.69	4.38	4	16	5.47
Unity Valley	5.79	1.29	4	21	4.69
Moneague	8.28	3.00	4	14	4.18
Claremont	7.55	4.80	4	8	6.12
Albion, St. Ann	6.52	2.13	4	16	5.15
Averham Park	12.84	6.30	4	18	6.88

Mean

*Gauge overflowed on 4th.

JAN., 1916.

NORTHERN DIVISION.	Greatest fall in 24 hours.				
	Total fall.	Amount.	Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Port Maria	3.52	0.80	20	20	6.72
Ocho Rios	3.27	1.16	20	6	5.42
Bogue, Ocho Rios	8.66	2.35	5	10	
Rockfield	17.78	1.04	5	13	
Drax Hall	7.57	2.00	19	17	4.84
Liberty Hill	16.46	5.25	4	16	
St. Ann's Bay	9.66	1.90	19	22	5.01
Seville	9.73	2.00	20	12	5.61
Richmond Estate					
Llandovery	6.63	3.70	20	7	6.62
Runaway Bay					
Brown's Town	11.33	4.12	3	13	5.41
Alexandria	1.67	0.49	26	5	
Chewinagna, St. Ann					
Home Castle†	13.95	4.40	5	16	5.39
Richmond Pen	1.20	0.70	26	2	3.48
Mahogany Hall	5.05	1.00	8	12	4.76
Barnstaple	6.96	3.57	5	5	
Brampton Bryan					
Bryan Castle	11.09	4.50	4	15	4.66
Braco	9.85	4.25	5	9	4.17
Arcadia	9.93	3.80	4	11	4.38
Lancaster	10.53	4.25	4	11	4.59
Harmony Hall	9.36	3.54	5	11	3.97
Vale Royal	8.44	3.33	5	9	4.94
Colchis Pen	1.55	0.55	8	6	3.29
Swanswick	9.27	3.59	1	16	
Georgia	7.61	2.90	4	16	
Long Pond	5.53	1.50	4	13	4.55
Hyde Hall	5.44	1.50	4	12	
Steelfield	7.72	2.60	5	11	4.38
Etingdon	6.61	2.52	4	12	
Lottery	5.75	1.55	4	12	3.78
Falmonth	4.89	2.24	4	8	3.60
Florence Hall	5.34	1.50	4	12	
Good Hope	2.30	0.55	20	8	
Unity	0.62	0.22	8	4	
Kent	4.72	1.50	4	12	
Gales Valley					
Canaan	3.38	0.76	4	10	
Content	3.61	1.15	4	13	
Bellfield					
Guildbro	1.85	0.55	30	12	
Glasgow					
Moor Park	2.18	0.50	20	8	4.19
Rose Hall	3.50	1.55	5	7	
Running Gut	3.09	1.24	5	7	
Cinnamon Hill	3.91	1.91	5	8	
Success	3.35	1.30	5	8	
Montego Bay	1.01	0.30	21	6	2.92
Catherine Hal	0.59	0.38	21	2	3.51
Retirement	1.22	0.38	20	11	
King Gate	0.40	0.20	30	3	3.94
Round Hill					
Blue Hole	0.37	0.27	26	2	
Haughton Comt					
Lucea					
Green Island	1.29	0.50	16	5	
CENTRAL SUB-DIVISION.					
Rio Magno	8.37	2.00	12	7	
Headworks, Rio Cobre	0.14	0.14	16	1	1.84
Linstead	2.55	0.60	20	8	2.15
Berkshire Hall	3.28	0.62	4	14	2.96
Point Hill	1.36	0.90	13	5	2.74
Marlie Hill	2.53	2.53	13	1	
Worthy Park	1.37	1.05	20	2	2.04
Croft Hill	0.75	0.65	20	2	
Chapelton	0.48	0.27	16	2	2.24
Danks Works	0.27	0.17	13	3	1.89
Savoy House	0.29	0.08	21	5	2.29
Crooked River					
Trout Hall	0.49	0.37	5	2	
Frankfield					
Cave Valley	2.20	0.50	20	10	2.26

Mean

†Gauge overflowed.

		JAN., 1916.							JAN., 1916.				
WEST-CENTRAL DIVISION.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	SOUTHERN DIVISION.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
			Amount.	Date.						Amount.	Date.		
		In.	In.			In.			In.	In.			In.
Whitney	...	0.50	0.50	14	1	2.68	Morant Point L. H.	...	1.25	0.29	20	12	4.30
Mocho, Clarendon	...	0.75	0.75	14	1	...	Elliott Hill	...	2.59	0.58	6	18	...
Spaldings	...	0.65	0.30	20	4	...	Pleasant Hill	...	2.37	0.61	5	10	...
Baillieston	...	0.79	0.46	20	2	...	East Prospect	...	...	...	...	...	...
Brokenhurst	...	0.75	0.25	5	4	3.12	Morant Bay	...	1.53	0.45	5	7	2.70
Christiana	...	3.36	2.39	17	4	2.35	Easington	...	0.56	0.35	16	4	1.64
Cludleigh	...	1.50	1.00	17	5	...	Bull Bay	...	0.00	...	...	...	0.87
Shooter's Hill	...	0.30	0.15	13	3	...	Gordon Town	...	1.00	1.00	13	1	2.08
Spitzbergen	...	0.33	0.20	5	2	...	Hope Gardens	...	...	...	...	...	...
Kendal, Manchester	...	0.94	0.60	17	3	2.39	King's House Gardens	...	...	...	...	...	...
Marshall's Pen	...	0.43	0.36	24	2	2.85	Melrose	...	0.61	0.39	13	4	...
Mandeville	...	0.51	0.30	13	3	3.04	Halfway Tree	...	0.40	0.40	13	1	1.12
Carlton, Mandeville	...	0.51	0.42	13	2	3.04	Lunatic Asylum	...	0.30	0.30	16	1	0.72
The Hill	...	0.79	0.66	17	3	...	Glenmore Road	...	0.45	0.40	16	3	...
Fairfield, Manchester	...	0.63	0.50	24	3	2.61	Kingston P. W. Office	...	0.09	0.08	16	2	1.02
Ulster Spring	...	0.20	0.20	27	1	3.06	Plumb Point L. H.	...	0.25	0.10	16	3	0.80
Freeman's Hall	...	0.60	0.40	4	2	...	Clifton Pen	...	0.15	0.15	16	1	...
Albert Town	...	0.00	...	...	0	...	Quarantine Station	...	0.27	0.15	16	2	...
Lowe River	...	0.00	...	...	0	2.92	Spanish Town	...	0.38	0.38	24	1	0.52
Troy	...	0.00	...	...	0	2.25	Hog Hole, St. Catherine	...	0.86	0.42	16	3	1.71
Windsor Pen, Trel.	...	1.03	0.67	8	5	3.13	Hartlands	...	1.55	1.45	24	2	1.78
Medina	...	0.18	0.13	5	2	...	Belmont, Guanaboa Vale	...	1.27	0.83	13	6	...
Wallingford	...	0.53	0.37	4	4	...	Old Harbour	...	0.30	0.30	24	1	2.07
Balaclava Police Station	...	0.18	0.21	16	2	1.71	May Pen	...	0.38	0.22	13	3	1.26
Siloah	...	2.15	0.40	5	6	3.08	Hillside	...	...	...	...	...	...
Appleton Estate	...	...	...	...	...	...	Moreland	...	2.25	1.90	24	2	2.16
Maggotty	...	1.41	0.50	17	6	2.72	Money Musk	...	...	...	...	...	...
Butlers	...	1.00	0.80	5	2	...	Dunkley's, Vere	...	0.10	0.10	14	1	1.33
Dromilly Pen	...	0.41	0.31	8	2	...	Dry River	...	1.12	0.68	24	3	...
Spring Vale	...	0.55	0.30	9	3	4.03	Denbigh	...	1.00	0.75	24	2	1.59
Garland	...	0.00	...	...	...	...	Toll Gate	...	0.38	0.17	5	2	...
Mocho, Catadupa	...	1.25	0.65	1	2	...	Woodleigh	...	0.50	0.50	24	1	...
Springfield, St. Elizabeth	...	1.92	0.72	16	6	2.04	New Yarinouth	...	0.33	0.33	17	1	1.20
Chesterfield, St. James	...	0.52	0.52	5	1	...	Exeter, Vere	...	0.87	0.68	24	2	1.64
Catadupa Rly. Station	...	0.62	0.40	5	3	...	Rhymesbury	...	1.71	1.54	24	3	1.01
Kempshot	...	0.79	0.18	30	9	3.98	Milk River	...	3.30	1.40	24	4	1.50
Cambridge, St. James	...	...	...	...	...	...	Clarendon Pk. Ry. St.	...	...	...	...	...	...
Ducketts	...	0.16	0.16	5	1	...	Victoria Town	...	0.35	0.35	23	1	1.82
New Market, Police St.	...	1.90	1.14	13	3	...	Hog Hole, S. Manch.	...	0.97	0.72	22	2	...
The Bog, New Market	...	2.74	1.08	16	7	...	Stone's Hope	...	0.99	0.72	16	3	2.68
Kew Park	...	0.57	0.30	5	2	2.32	Newport, Manchester	...	0.48	0.26	16	6	2.66
Knockalva	...	0.29	0.12	16	4	...	Great Valley, Man.	...	0.93	0.55	20	4	2.49
Ramble	...	...	...	...	...	...	Alligator Pond	...	1.00	1.00	20	1	1.41
Petersville	...	4.03	1.66	15	7	2.25	Southfield, St. Elizabeth	...	1.65	1.26	17	3	...
Darliston	...	2.00	1.15	16	5	2.93	Lititz	...	0.57	0.31	15	3	...
Bluefields	...	1.56	0.83	13	4	...	Long Hill	...	...	...	...	...	...
Whithorn	...	1.49	0.76	28	7	1.97	Torrington	...	2.34	1.61	24	4	2.31
Water Works Pen	...	1.12	0.96	28	2	...	Bethlehem, St. Eliz.	...	1.53	0.88	24	6	2.52
Great Valley, Han.	...	0.10	0.10	21	1	4.68	Santa Cruz	...	0.22	0.09	30	5	2.83
Prospect Park	...	...	...	...	...	...	Pedro Plains Police St.	...	0.65	0.20	14	5	2.04
Blackheath	...	...	...	...	...	...	Mountainside	...	1.54	1.00	24	4	...
Fontabelle, Westm.	...	1.27	0.65	28	6	1.94	Black River	...	0.26	0.10	20	3	1.63
Belleisle	...	0.88	0.70	28	3	1.80	Font Hill	...	2.25	1.25	28	5	1.88
Morgan's Bridge	...	1.23	0.45	28	5	1.82	Mount Edgecombe	...	1.71	0.43	26	8	2.04
King's Vale Police St.	...	1.08	0.55	16	3	3.26	Sweet River	...	1.05	0.40	16	4	1.82
Mean	...	1.06	...	...	...	...	Windsor, Sav.-la-mar	...	1.21	0.49	30	4	1.83
							Orchard	...	1.04	0.49	30	4	...
							Sav.-la-mar	...	0.46	0.26	5	5	1.62
							Meylersfield	...	...	...	...	...	...
							Little London	...	0.91	0.51	5	4	...
							Retreat	...	0.58	0.40	5	3	1.57
							Negril Point L.H.	...	0.53	0.21	5	6	1.34
							Mean	...	0.92	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	JAN.	
	1916.	Average.
	In.	In.
North-Eastern Division	6.97	7.15
Northern	5.08	3.77
West-Central	1.06	2.85
Southern	0.92	1.81
The Island	3.51	3.90

The rain fell in a well marked belt about 10 miles wide, reaching from Moore Town to Falmouth ; and it affords a good example of the winter rains along the northern hills of Jamaica.

At Greenvale in Portland, and at Highgate in St. Mary, over 28 inches fell; but to the south and west of the belt the rainfall was uniforly small, and no rain fell at some places.

SHOCKS OF EARTHQUAKE IN JAN., 1916.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
	hr. min.		
8	2.35 a.m.	I	Mt. Holstein.
12	4.25 p.m.	II	Petersville.
30	3.34 a.m.	III	Kingston; N W. & S.E. 0.075 3 sec.
"	"	IV	Mt. Holstein : NW & SE.
"	"	III	Buff Bay.
"	"	III	Moy Hall.
"	"	III	Gordon Town.
"	"	II	Morant Pt.
"	"	I	Rac Course.
"	6.15 p.m	I	Moy Hall.
31	3.30 p.m.	I	"

NOTES.

The epicentres B near Newcastle and Y near Yallahs were both due on the morning of the 30th. The effect from B was the more strongly marked by direction and intensity at Mt. Holstein, and by direction at Kingston.

The shock at 6.15 p.m. and on the 31st were of the nature of "aftershocks."

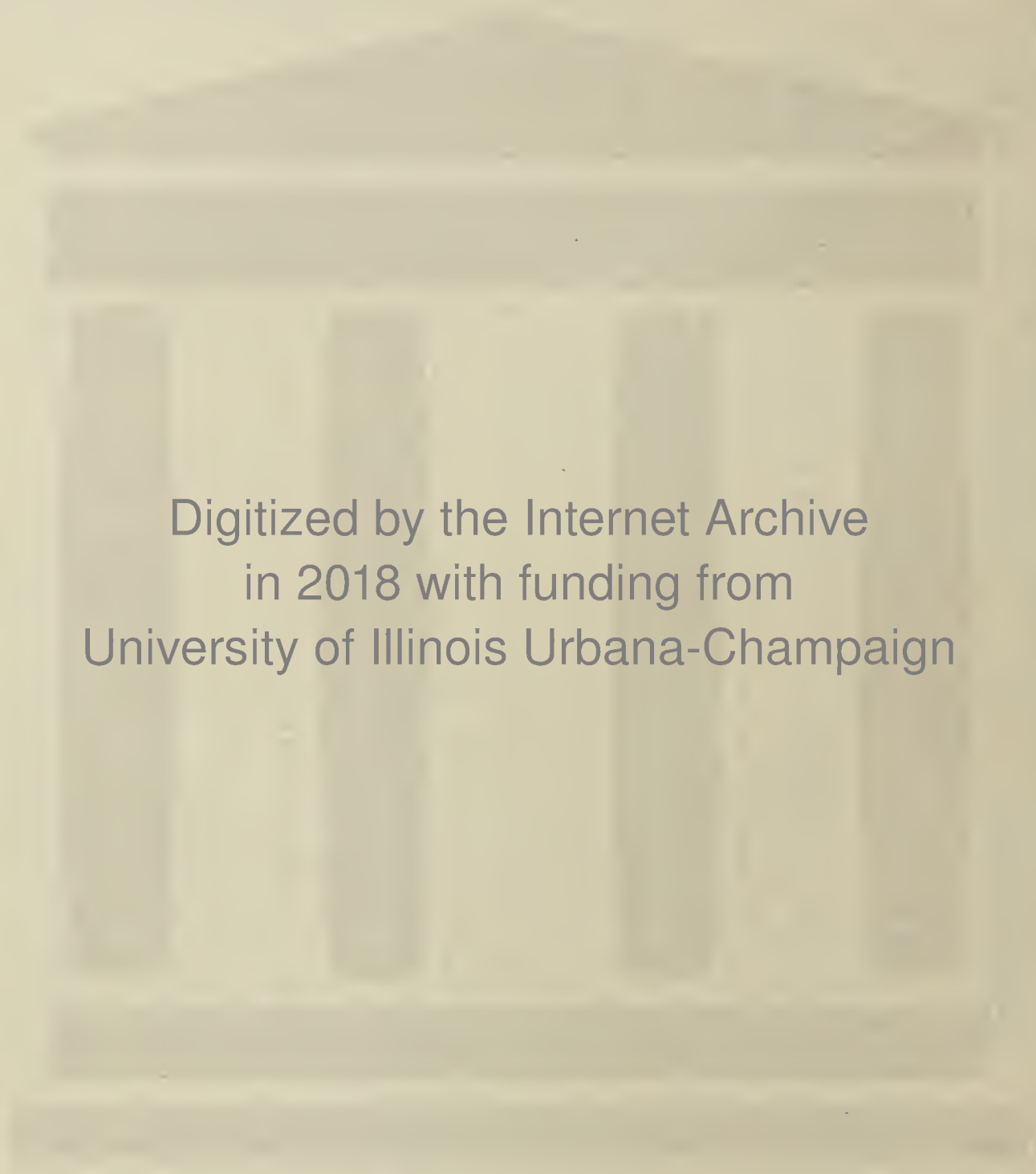
Montego Bay P.O.

MAXWELL HALL,
Government Meteorologist.

NEGRIL POINT LIGHT HOUSE. MEAN RESULTS FOR THE YEAR 1915.

ELEVATION 33 FEET.

Month.	Barometer.		Temperature.						Extremes for the month.				Dewpoint and humidity.			Wind: miles of, per day.	Wind from and miles per hour.				Clouds : In tenths of Sky.					Weather Conditions.					
			7 a.m.			3 p.m.			Range.	Min.	Max.	7 a.m. 3 p.m.		Rain-fall.	7 a.m.		3 p.m.	11 p.m.	Lower.		Middle.		Upper.								
	Ins.	Ins.	Mean.	7 a.m.	3 p.m.	Max.	Min.	Range.				°	°			°			°	°	°	°	°	°	°		°	°	°	°	°
Jan.	.29	.942	76.6	72.5	81.7	84.1	70.1	14.0	86.7	67.0	19.7	67.7	85.7	2.4	70	3.43	Ins.	223	E	3.5	SSE	12.2	NE	8.4	1.7	2.6	1.0	4.0	0.0	0.0	Fine 4, cloudy 14, overcast 3. Rain 10 days, norther 12 and 13, 20 and 21, Rainfall above average.
Feb.	.964		919	76.1	72.0	80.6	82.6	69.3	13.3	84.8	66.8	18.0	65.1	179	67.9	66	5.62	267	E	11.0	N	12.0	NE	11.2	1.8	1.4	0.4	2.4	1.4	0.3	Fine 14, cloudy 4, overcast 2, rain on 8 days. Northerly winds during the month. Rainfall above average.
March	.943		898	76.7	73.7	81.3	83.4	70.2	13.2	86.3	65.2	21.1	67.3	80	69.7	68	1.63	239	E	8.0	NNE	13.0	NE	10.1	2.9	3.5	1.7	1.8	1.8	0.2	Fine 7, cloudy 10, overcast 10. Rain on 4 days. Norther 23 and 24. Rainfall below average.
April	.911		868	77.3	74.9	81.8	84.3	70.3	14.0	89.3	64.6	24.7	66.9	76	68.7	65	3.56	283	ENE	10.5	NNE	13.9	NE	11.7	2.6	2.8	1.6	3.6	2.0	1.0	Fine 4, cloudy 7, overcast 10. Rain on 9 days, Th. on 2 days. Rainfall below average.
May	.905		871	79.9	78.8	83.8	86.2	72.7	13.5	89.5	66.0	23.5	72.3	80	74.2	73	3.96	212	E	8.0	SSE	12.0	E	8.3	2.3	4.2	0.1	3.8	3.3	0.5	Fine 5, cloudy 6, overcast 13 and rain on 7 days, T or L on a few days. Rainfall below average.
June	.900		881	81.0	80.1	83.7	87.5	74.7	12.8	91.1	71.6	19.5	73.4	79	75.7	77	5.85	229	ESE	8.0	SE	13.0	SE	8.3	1.0	3.3	1.1	4.8	3.4	1.0	Fine 1, cloudy 2, overcast 12. Rain on 15 days. Frequent Th. and T or L. Rainfall below average.
July	.951		927	80.3	78.7	83.2	88.0	73.3	14.7	90.5	71.0	19.5	70.5	76	73.8	73	7.13	178	E	8.0	E	10.0	ENE	6.0	0.7	3.5	0.2	5.7	5.0	0.3	Overcast 14, rain on 17 days. Frequent Th, T or L. Rainfall above average.
Aug.	.881		852	81.2	79.3	85.2	88.3	74.0	14.3	90.5	71.7	18.8	73.4	83	76.2	74	8.75	256	E	11.5	SW	13.0	ENE	9.0	0.6	1.0	0.4	7.1	3.5	0.6	Fine 1, cloudy 6, overcast 9, rain on 15 days. Frequent Th, T or L. Depres-sion 13 and 29. Rainfall above average.
Sept.	.841		807	80.7	78.5	84.6	87.3	74.2	13.1	91.5	70.6	20.9	72.9	83	75.3	74	8.67	243	E	11.0	E	13.0	E	8.0	2.6	5.0	0.3	2.9	4.3	1.3	Cloudy 4, overcast 14, rain on 12 days. Frequent Th, T or L. Passing depres-sion on 24. Rainfall above average.
Oct.	.855		802	80.3	77.7	84.3	87.6	73.6	14.0	89.9	69.6	20.3	73.4	86	76.3	77	5.03	177	ENE	7.4	NNW	10.2	ENE	7.0	1.8	2.9	0.0	4.8	5.4	0.9	Cloudy 6, overcast 13, rain on 12 days. Frequent Th, T or L. Rainfall below average.
Nov.	.909		858	78.9	75.3	83.3	86.1	72.7	13.4	89.3	68.0	21.3	70.5	83	72.6	70	2.05	233	E	9.3	ENE	14.6	ENE	9.7	3.3	3.6	1.0	3.0	2.7	1.3	Fine 4, cloudy 6, overcast 13. rain on 7 days. Th. on 1 day, T or L on a few days. Rainfall below average.
Dec.	.955	.29	902	78.2	74.4	82.9	85.5	72.0	13.5	89.2	68.6	20.6	68.1	81	71.1	68	1.38	233	NE	11.5	NE	12.2	NE	10.1	2.5	2.1	0.0	4.5	2.2	1.2	Fine 5 days, cloudy 7, overcast 12, rain 7, Th. on 22nd. Earthquake on the 12th. Rainfall below average.
Means	.29	.913	29.873	78.9	76.3	83.0	85.9	72.3	13.6	89.1	68.4	20.7	70.1	81	72.7	71	..	232	E	9.0	ENE	12.4	ENE	9.0	2.0	3.0	0.6	4.0	2.9	0.7	Rainfall for the year normal, but badly distributed for agricultural purposes. 123 rainy days for the year.
Total	57.06



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JAMAICA

WEATHER REPORT

FOR THE MONTH OF

FEBRUARY, 1916.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Elevation.	Bar Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
Morant Pt. Light House	ft. 8	in. 30.004	in. 29.954	76.1	78.7	80.6	73.0	7.6	83.0	19*	65.5	26	17.5
Kingston	24	29.980	29.937	69.1	80.6	84.6	67.6	17.0	89.2	25	63.2	4	26.0
Negril Point Light House	33	29.989	29.939	71.3	80.3	82.5	68.4	14.1	86.4	1*	62.9	28	23.5
Castleton Gardens	496	..	..	63.2	79.4	82.3	62.0	20.3	89	6	58	27	31
Hope Gardens†	668	30.001	29.914	66.8	80.4	84.5	64.3	20.2	88	6*	58	26	30
Bavinton, Stony Hill**	1,355	..	..	64.9	74.9	77.9	63.2	14.7	81.5	8	57.5	27	24.0
Stony Hill Indus. School	1,400	..	..	65.7	75.3	78.1	64.3	13.8	84	7*	62	2*	22
Hill Gardens	4,900	25.304	25.265	58.3	61.1	65.1	52.2	12.9	69	8*	48	27	21

STATIONS.	Elevation.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.					7 a.m.	3 p.m.			7 a.m.	3 p.m.				
Morant Pt. Light House	ft. 8	68.4	77	69.9	74	7.30	307	NNE	16	NE	14	L. 4.1	M. 1.6	U. 0.3	L. 3.7	M. 1.7	U. 0.4
Kingston	24	64.3	85	67.5	65	0.57	165	N	5.7	SE	10.6	2.7	2.1	0.7	4.3	1.9	1.3
Negril Point Light House†	33	64.5	79	67.0	64	2.63	270	NE	10.7	N	15.1	0.3	1.5	0.7	2.9	3.8	0.8
Castleton Gardens	496	57.8	75	69.2	72	9.58	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	61.7	84	67.8	67	4.65	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,355	62.0	83	65.0	72	6.40	..	N	1.6	NW	1.1	5.1	0.5	0.3	5.6	1.1	0.2
Stony Hill Indus. School	1,400	62.7	90	66.1	73	4.32	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	4,900	55.3	90	58.6	96	10.84	..	..	..	..	..	..	..	..	..	..	..

* and on other days.

† Negril Point Light House.

** Bavinton, Stony Hill.

† Hope Gardens. Bar. read at 9 a.m. and 3 p.m.

Wind 11 p.m.

N.E. 9.5

Mean Min. temp. on grass 60°1.

Plumb Point Light House { Average No. of Miles of wind per diem 180
 { Greatest on the 25th 304
 { Least on the 24th 103

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.		FEB., 1916.											
		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.							
			Amount	Date.									
		In.	In.			In.							
Manchioneal	...	9.49	2.24	15	15	6.10	Bryan Castle	...	7.65	3.22	18	13	2.32
Spring Valley, Portland	...	9.39	2.10	16	17	...	Braco	...	6.75	3.00	18	17	2.23
Bath	...	7.62	2.40	16	19	4.86	Arcadia*	...	9.30	5.00	18	11	2.36
Boston	...	10.16	2.15	18	14	6.14	Lancaster	...	8.75	4.05	18	8	2.51
Moore Town	...	26.75	8.00	17	12	14.18	Harmony Hall	...	8.04	3.00	18	12	2.33
Port Antonio	...	10.18	2.28	16	18	6.19	Vale Royal	...	4.85	3.05	18	6	2.72
Fellowship	...	15.06	3.23	15	21	11.76	Colchis Pen	...	1.35	0.57	16	4	1.74
Johnson River Bridge	...	4.94	1.40	18	17	2.24	Swanswick	...	4.72	2.25	16	8	...
Shrewsbury	...	36.45	7.58	19	15	10.22	Georgia	...	5.66	2.41	18	9	...
Cedar Valley, St. Thos.	...	7.43	1.53	11	11	2.76	Long Pond	...	4.42	2.20	16	9	2.74
Hope Bay	...	18.45	3.80	16	18	...	Hyde Hall	...	5.44	1.90	18	6	...
Moy Hall, St. Thos.	...	8.83	3.75	11	9	2.45	Steelfield	...	4.52	1.64	18	8	2.31
Brooklodge	...	7.26	2.14	11	14	...	Etingdon	...	4.27	1.64	18	9	...
Lennox	...	24.15	5.50	27	19	...	Lottery	...	5.10	2.25	16	6	2.01
Farm Hill	...	14.95	3.55	11	8	...	Falmouth	...	7.52	3.60	18	5	1.81
Hill Gardens	...	10.84	...	...	...	3.25	Florence Hall	...	5.35	3.60	16	6	...
Buff Bay	...	15.01	5.00	20	17	4.05	Good Hope	...	5.20	1.85	16	8	...
Vinery	...	23.35	5.63	20	13	7.74	Unity	...	3.83	2.37	16	7	...
Windsor Castle, Port.	...	12.24	2.53	20	16	...	Kent	...	5.52	2.05	16	7	...
Greenvale, Portland	...	27.60	6.00	16	19	...	Gales Valley	...	...	...	...	...	...
Mt. Holstein	...	19.45	5.49	11	22	...	Canaan	...	3.30	1.48	18	8	2.44
Irish Town	...	2.53	1.00	20	5	7.46	Content	...	4.38	3.10	18	8	...
Rose Hill	...	8.72	2.08	11	10	1.44	Bellfield	...	6.43	3.10	18	6	...
Hardware Gap	...	9.00	...	...	...	...	Guilsbro	...	3.37	1.13	16	12	2.09
Stony Hill Ind. School	...	4.32	1.65	11	11	3.45	Glasgow	...	1.74	0.97	18	6	...
Castleton Gardens	...	9.58	...	...	...	2.22	Moor Park	...	1.99	0.84	18	5	2.25
Lawrence Tavern	4.95	Rose Hall	...	3.36	2.10	18	4	...
Cedar Valley, Red Hills	Running Gut	...	3.26	2.20	18	4	...
Carew Castle	...	6.06	2.21	11	11	...	Cinnamon Hill	...	3.76	2.50	18	4	...
Agualta Vale	...	13.07	3.16	20	18	1.84	Success	...	3.85	2.50	18	4	...
Water Valley	...	12.92	3.30	20	17	...	Montego Bay	...	1.72	1.08	18	6	2.06
Albany, Ry. Station	...	12.61	3.27	28	14	5.73	Catherine Hall	...	1.58	1.04	18	3	2.47
Platfield	...	8.35	4.53	11	10	...	Retirement	...	3.46	1.48	18	9	...
Richmond, St. Mary	...	6.62	1.98	10	12	5.31	King Gate	...	2.26	1.82	18	3	2.94
Highgate	...	10.24	1.85	20	17	...	Round Hill	...	...	...	...	...	...
Hampstead, St. Mary	...	17.93	2.12	...	14	...	Blue Hole	...	10.70	4.90	18	4	...
Troja	21	...	...	Haughton Court	...	3.67	1.70	9	5	...
Guy's Hill	...	6.47	2.00	10	6	...	Lucea	...	3.10	1.60	18	2	2.16
Lucky Hill	...	8.69	1.84	10	16	...	Green Island, Police St.	...	2.13	1.10	18	5	...
Rio Hoe	...	5.47	1.83	11	15	4.05	CENTRAL SUB-DIVISION.						
Unity Valley	...	7.15	3.18	11	16	3.60	Rio Magno	...	8.90	2.00	20	6	...
Moneague	...	5.91	2.40	11	14	4.08	Headworks, Rio Cobre	...	4.24	1.25	5	11	1.63
Claremont	...	3.25	1.05	16	6	4.58	Linstead	...	4.36	1.35	18	9	1.96
Albion, St. Ann	...	4.25	0.91	20	12	3.59	Berkshire Hall	...	4.36	1.50	11	11	2.09
Averham Park	...	5.53	1.42	16	12	4.50	Point Hill	...	7.24	2.70	21	11	3.85
Mean	...	10.36	...	...	...	...	Marlie Hill	...	5.78	1.55	23	9	...
							Worthy Park	...	3.48	1.92	23	9	2.05
							Croft Hill	...	...	...	...	...	...
							Chapelton	...	2.97	1.78	23	11	1.80
							Danks Works	...	2.63	1.63	23	10	1.85
							Savoy House	...	3.46	2.26	23	10	1.74
							Crooked River	...	...	...	...	...	...
							Trout Hall	...	4.43	2.00	23	9	...
							Frankfield	...	...	...	...	...	...
							Cave Valley	...	...	...	...	...	...
							Mean	...	5.18	...	...	...	...

* Gauge overflowed.

WEST-CENTRAL DIVISION.	FEB., 1916.					SOUTHERN DIVISION.	FEB., 1916.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Whitney	2.19	0.80	24	4	2.84		In.	In.			In.
Mocho, Clarendon	1.10	0.80	23	6	...	Morant Point L. H.	7.30	2.05	14	18	2.74
Spaldings	6.13	1.62	13	12	...	Elliott Hill	7.07	1.21	20	22	...
Baillieston	2.55	1.10	23	5	2.99	Pleasant Hill	7.20	1.45	...	16	...
Brokenhurst	3.60	1.10	16	8	2.67	East Prospect	3.28	2.05	18	7	...
Christiana	3.92	1.12	13	13	2.75	Morant Bay	4.56	2.70	18	14	2.03
Chudleigh	3.50	1.55	13	11	...	Easington	3.11	1.50	15	10	1.52
Shooter's Hill	2.35	0.90	1	10	...	Bull Bay	0.00	...	...	...	0.53
Spitzbergen	2.40	0.67	13	9	...	Gordon Town	3.20	1.00	13	6	1.76
Kendal, Manchester	2.09	0.50	1	6	2.59	Hope Gardens	4.65	...	...	...	1.77
Marshall's Pen	1.72	0.71	14	6	3.90	King's House Gardens	1.57	...	...	...	1.22
Mandeville	1.98	0.40	15	11	2.87	Melrose	1.56	0.40	15	10	...
Carlton, Mandeville	2.22	0.70	15	11	2.87	Halfway Tree	1.85	0.60	19	8	0.88
The Hill	2.29	0.66	16	6	...	Lunatic Asylum	0.56	0.25	11	5	0.54
Fairfield, Manchester	2.32	0.69	10	13	3.11	Glenmore Road	0.92	0.29	11	7	...
Ulster Spring	5.75	2.00	16	17	2.76	Kingston P. W. Office	0.57	0.20	10	6	0.67
Freeman's Hall	4.80	1.55	7	9	...	Plumb Point L. H.	0.42	0.25	18	4	0.72
Albert Town	4.19	1.00	7	7	...	Clifton Pen	0.91	0.40	19	3	...
Lowe River	5.30	1.75	16	8	2.54	Quarantine Station	0.56	0.18	18	4	...
Troy	2.79	1.75	18	4	2.82	Spanish Town	2.06	0.83	18	7	1.34
Windsor Pen, Trel.	3.73	1.70	16	7	2.36	Hog Hole, St. Catherine	3.32	2.10	18	7	...
Medina	3.02	0.61	22	11	...	Hartlands	2.97	1.30	18	5	1.23
Wallingford	...	...	...	...	...	Belmont, Guanaboa Vale	5.56	2.22	1	14	...
Balaclava Police Station	1.82	0.78	12	6	2.29	Old Harbour	3.40	0.90	19	5	1.81
Siloah	3.50	1.90	21	5	2.37	May Pen	4.41	1.20	7	7	1.76
Appleton Estate	...	...	...	...	...	Hillside	1.90	1.50	...	2	1.72
Maggotty	3.61	0.82	12	9	2.70	Moreland	4.84	2.98	18	6	1.98
Butlers	3.43	1.40	21	8	...	Money Musk	...	...	...	...	...
Dromilly Pen	3.27	1.80	16	5	...	Dunkley's, Vere	3.58	1.48	23	6	1.17
Spring Vale	...	...	...	...	...	Dry River "	2.41	1.90	22	5	...
Garland	4.80	2.00	1	7	...	Denbigh	...	...	...	...	...
Mocho, Catadupa	5.02	1.56	1	8	...	Toll Gate	4.10	1.86	13	9	...
Springfield, St. Elizabeth	3.60	0.85	1	10	...	Woodleigh	...	...	...	...	...
Chesterfield, St. James	5.06	2.00	1	6	...	New Yarmouth	4.43	2.17	23	5	1.02
Catadupa Rly. Station	4.29	2.20	1	11	...	Exeter, Vere	3.44	1.00	23	5	0.97
Kempshot	3.24	0.93	16	12	3.00	Rhymesbury	3.46	1.57	23	7	1.37
Cambridge, St. James	2.31	0.40	1	10	...	Milk River	2.16	1.14	15	4	1.64
Ducketts	3.25	1.50	1	6	...	Clarendon Pk. Ry, St.	...	...	...	...	...
New Market, Police St.	3.66	1.25	11	10	...	Victoria Town	4.49	1.94	10	5	1.91
The Bog, New Market	3.49	1.33	1	10	...	Hog Hole, S. Manch.	4.15	1.26	14	9	...
Kew Park	2.66	1.14	21	8	2.72	Stone's Hope	1.84	0.67	10	4	2.22
Knockalva	4.59	2.61	21	10	...	Newport, Manchester	2.41	0.57	10	16	2.94
Ramble	...	...	...	...	...	Great Valley, Man.	1.77	0.89	15	8	2.48
Petersville	3.06	1.02	11	11	2.91	Alligator Pond	1.59	1.10	15	2	1.20
Darliston	3.30	1.40	1	12	3.63	Southfield, St. Elizabeth	1.36	0.79	10	4	...
Bluefields	4.93	1.80	1	7	4.35	Lititz	0.80	0.31	11	8	...
Whithorn	3.97	1.30	1	9	3.40	Long Hill	...	...	...	...	...
Water Works Pen	2.94	1.09	9	10	...	Torrington	2.16	0.91	10	6	2.52
Great Valley, Han.	4.85	5.00	18	5	3.18	Bethlehem, St. Eliz.	2.07	0.78	11	8	2.55
Prospect Park	...	...	...	...	...	Santa Cruz	2.63	0.76	11	7	2.48
Blackheath	2.94	0.70	21	8	...	Pedro Plains Police St.	0.45	0.18	19	4	1.43
Fontabelle, Westm.	2.43	0.60	21	7	2.62	Mountainside	2.22	0.55	11	7	...
Belleisle	2.90	0.58	21	6	2.40	Black River	3.00	0.82	15	12	1.78
Morgan's Bridge	1.62	0.42	1	6	2.43	Font Hill	3.35	1.35	21	7	1.38
King's Vale Police St.	2.72	1.70	18	6	2.73	Mount Edgecombe	2.51	0.75	11	11	2.48
						Sweet River	2.96	0.90	1	12	2.32
Mean	3.14	...	...	...	...	Windsor, Sav.-la-mar	2.52	0.72	9	8	2.34
						Orchard	2.56	0.88	9	9	...
						Sav.-la-mar	1.98	1.09	9	6	2.00
						Meylersfield	2.47	1.62	7	5	...
						Little London	2.13	0.78	21	7	...
						Retreat	2.61	0.89	11	7	2.36
						Negril Point L.H	2.63	0.95	18	9	1.54
						Mean	2.70	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.

(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.		FEB.	
		1916.	Average.
		In.	In.
North-Eastern Division	...	10.36	5.29
Northern	...	5.18	2.55
West-Central	...	3.14	2.76
Southern	...	2.70	1.67
The Island	...	5.24	3.07

The rainfall was above the average in the northeastern division and in Vere. Between Moore Town and Greenvale, on the north-eastern side of the Blue Mountains, 27, 28, and 36 inches of rain were recorded. The rest of the island had average rains.

SHOCKS OF EARTHQUAKE IN FEB., 1916.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
	hr. min.		
I 28	during night 8.0 p.m.	I	Mt. Holstein; .004.
		I	Kingston; N & S .008, duration 2 secs.
		I	Mt. Holstein; NE & SW .010.
		I	Halfway Tree and Trinity Ville.

NOTES.

Epicentres B & P were due Feb. 27.4 & 27.6 respectively; but the direction of the shock in Kingston shows it was due to B; and from the slowness of the shock it is not probable that both centres were disturbed.

Montego Bay P.O.

MAXWELL HALL,
Government Meteorologist.

METEOROLOGICAL OBSERVATIONS. MORANT POINT LIGHT HOUSE, JAMAICA. MEAN RESULT FOR YEAR, 1915.

Month.	Bar. Pressure.		Temperature						Extremes for the month.			Dewpoint and humidity.		Rain-fall.	Miles of Wind per diem.	Wind from and miles per hour.		Clouds in tenths.						Weather Conditions.		
			Temperature						Max.	Min.	Range.	7 a.m. 3 p.m														
	7 a.m.	3 p.m.	Max.	Min.	Range.	Mean.																				
							7 a.m.	3 p.m.										7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.		7 a.m.	3 p.m.
Jan.	Ins.	Ins.	Ins.	°	°	°	°	°	°	°	°	°	Ins.	313	NE	17	NE	15	3.8	2.7	1.0	1.0	0.6	1.1	Norther started 5.45 p.m. 21st with rain from NW, settled into gale from NE.	
Feb.	29.977	29.937	76.876	9.78	5.81	2.72	5	8.784	0.65	5	18.570	5.80	71.178	4.39	350	NE	19	NE	19	3.8	4.4	0.5	0.6	0.3	1.1	Northers on 9th to 13th continuous.
March	29.949	29.908	77.076	1.80	4.82	8.70	6	12.286	5.64	0.22	5.71	4.86	72.577	1.93	249	Var.	13	ENE	15	2.7	2.9	1.0	1.2	1.3	1.0	N W gale started 23rd finished up on 25th as Norther.
April	29.915	29.887	76.876	8.79	1.81	7.71	5	10.286	0.62	0.24	0.71	4.83	72.581	10.92	340	NNE	16	NE	16	3.3	4.9	0.7	0.7	1.4	0.7	N W gale 3rd and 4th. Bar. falling from 22nd to 28th, then rise, nothing but T. & L, 26th wind shifted from E thro. S to S W with rain.
May	29.934	29.897	80.980	9.83	0.84	7.77	1	7.687	0.64	5.22	5.75	2.82	76.488	6.04	286	ENE	16	ENE	14	3.8	3.2	1.2	1.3	1.1	1.2	5th & 6th Bar. rather low but very little rain.
June	29.931	29.902	82.682	9.84	4.86	4.78	8	7.688	0.73	0.15	0.75	9.79	76.176	7.05	261	E	16	E	13	3.3	3.3	1.5	1.0	0.9	1.2	Distant T. & L. at night frequent. Occasional T. & L. Bar. low on 5th.
July	29.993	29.952	83.583	4.85	5.87	0.80	0	7.088	0.75	0.13	0.76	1.78	77.376	2.68	266	ENE	16	E	16	1.4	1.8	2.4	2.1	2.2	1.5	Distant T & L at night. Occasional T. & L.
Aug.	29.922	29.890	82.982	6.84	7.86	8.79	5	7.389	0.74	0.15	0.75	5.79	75.574	9.08	293	NE	13	NE	12	2.2	2.2	1.3	1.6	1.3	1.4	Hurricane 12th & 13th.
Sept.	26.890	29.850	82.382	6.84	3.86	6.77	6	9.088	0.74	0.14	0.75	8.80	76.578	9.42	264	NE	12	E	13	2.4	3.2	1.5	1.2	1.6	1.8	25th violent squalls and heavy sea. A squally month.
Oct.	29.894	29.837	82.282	6.84	0.86	4.77	9	8.588	5.71	5.17	0.74	8.78	75.275	16.75	219	NE	11	NE	7	3.7	3.5	0.6	0.9	1.6	1.9	Heavy rain latter part of month.
Nov	29.949	29.895	80.180	81.783	7.76	7	7.086	0.70	0.16	0.72	6.77	73.0	510.12	361	NE	18	NE	15	4.8	3.3	0	8	1.8	1.0	1.4	Norther on 26th.
Dec.	29.994	29.908	79.879	4.81	9.83	0.76	8	6.286	5.70	0.16	5.71	8.78	72.172	1.83	351	NE	17	NE	6	3.5	3.3	0.8	0.6	2.1	1.2	Strong N E wind most of month. Little rain.
Total	..	..	..	..	..	..	..	..	..	..	..	..	..	84.51	..	..	..	..	..	..	..	..	..	..	..
Means	29.942	29.903	80.280	2.82	3.84	4.76	0	8.486	8.69	1.17	7.73	6.80	74.377	..	297	NE	15	NE	14	3.2	3.2	1.1	1.2	1.3	1.3	

51.05
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JAMAICA

WEATHER REPORT

FOR THE MONTH OF
MARCH, 1916.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.954	29.911	75.6	79.7	81.3	71.9	9.4	83.0	3*	63.0	4*	20.0
Kingston ..	24	29.975	29.930	70.1	82.9	86.1	68.3	17.8	88.7	24	65.4	4	23.3
Negril Point Light House ..	33	29.989	29.933	71.8	81.3	83.3	68.5	14.8	85.7	6	64.0	8	21.7
Castleton Gardens ..	496	..	..	65.3	80.7	84.9	64.4	20.5	89	2*	60	8*	29
Hope Gardens† ..	668	29.988	29.884	69.3	81.4	85.3	65.1	20.2	89	24	61	18	28
Bavinton, Stony Hill** ..	1,355	..	..	65.6	76.6	79.8	63.3	16.5	84.0	7	60.5	4	23.5
Stony Hill Indus. School ..	1,400	..	..	65.9	77.0	79.4	64.6	14.8	86	7	63	4*	23
Hill Gardens ..	4,900	25.299	25.253	60.6	62.2	63.4	52.7	13.7	71	2	51	3*	20

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.					7 a.m.	3 p.m.			7 a.m.	3 p.m.				
	ft.	°	°	°	°	in.	miles					L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	8	67.2	75	68.5	69	1.62	272	NE	14	NE	13	2.8	1.1	0.9	1.6	1.8	0.5
Kingston ..	24	64.3	82	66.2	57	0.79	183	N	5.5	SE	13.5	1.0	1.3	1.6	3.1	1.7	1.0
Negril Point Light House† ..	33	64.5	77	67.8	64	0.97	240	NE	9.6	NNW	13.7	1.7	0.8	1.4	2.8	3.0	1.0
Castleton Gardens ..	496	63.1	93	69.7	69	4.36	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	62.2	78	69.8	69	1.48	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill ..	1,355	62.2	88	63.8	65	2.24	..	N	1.7	W	1.0	2.5	0.9	1.0	4.4	1.7	0.3
Stony Hill Indus. School ..	1,400	62.5	88	65.0	66	1.60	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	56.7	86	59.8	93	2.41	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
† Negril Point Light House. Wind 11 p.m. N.E. 9.4
** Bavinton, Stony Hill. Mean Min. temp on grass 59°.0
Plumb Point Light House { Average No. of Miles of wind per diem 126
{ Greatest on the 6th 301
{ Least on the 28th 91

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

	MAR., 1916.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount	Date.		
NORTH-EASTERN DIVISION.	In.	In.			In.
Manchioneal	2.94	1.08	9	5	3.26
Spring Valley, Portland	5.37	0.92	10	14	..
Bath	3.71	0.80	4	11	4.57
Boston	...	..	...	...	...
Moore Town	...	..	...	...	...
Port Antonio	3.15	0.79	10	11	4.90
Fellowship	6.13	1.10	17	17	8.09
Johnson River Bridge	1.72	0.63	10	10	2.59
Shrewsbury	8.05	1.29	17	19	4.03
Cedar Valley, St. Thos.	1.76	0.93	10	2	3.30
Hope Bay	...	..	...	...	...
Moy Hall, St. Thos.	3.25	1.00	17	5	3.01
Brooklodge	1.81	0.46	14	9	...
Lennox	4.70	1.50	11	14	...
Farm Hill	3.78	1.20	16	5	...
Hill Gardens	2.41	0.85	16	8	5.19
Buff Bay	7.14	3.40	23	11	5.79
Vinery	10.01	4.00	23	11	..
Windsor Castle, Port.	7.17	3.60	23	10	...
Greenvale, Portland	14.29	3.85	23	15	...
Mt. Holstein	6.61	2.27	17	18	9.53
Irish Town	2.00	1.10	12	3	2.87
Rose Hill	3.58	1.67	16	5	...
Hardware Gap	4.50	..	...	...	4.50
Stony Hill Ind. School	1.60	0.70	10	8	2.99
Castleton Gardens	4.36	1.39	31	9	4.92
Lawrence Tavern	1.98	1.20	10	5	2.69
Cedar Valley, Red Hills	5.18	...	...	...	...
Carew Castle	1.15	0.51	2	6	3.92
Agualta Vale	4.73	2.35	11	8	...
Water Valley	5.00	1.60	11	11	5.69
Albany, Ry. Station	...	..	...	...	...
Platfield	1.51	0.50	11	10	...
Richmond, St. Mary	2.51	0.55	14	10	3.75
Highgate	3.92	1.00	11	13	...
Hampstead, St. Mary	5.52	1.62	11	5	...
Troja	...	...	...	...	...
Guy's Hill	2.35	0.82	4	8	...
Lucky Hill	2.59	1.07	10	8	...
Rio Hoe	2.61	0.75	16	7	3.64
Unity Valley	3.05	1.88	16	11	3.64
Moneague	3.38	1.14	17	9	3.03
Claremont	0.50	0.25	8	3	3.43
Albion, St. Ann	3.29	0.80	11	11	3.61
Averham Park	3.08	0.80	16	10	3.81
Mean	3.43	...	...	...	...

NORTHERN DIVISION.

	MAR., 1916.				
	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			In.
Port Maria	3.52	1.40	14	12	3.19
Ocho Rios	2.20	1.20	11	6	3.54
Bogue, Ocho Rios	3.62	0.83	9	8	...
Rockfield	4.04	0.87	5	9	...
Drax Hall	2.80	0.80	11	10	3.21
Liberty Hill	3.73	0.90	15	7	...
St. Ann's Bay	3.19	0.95	13	9	2.40
Seville	2.77	0.83	13	7	3.07
Richmond Estate	...	...	...	...	...
Llandoverly	1.55	0.40	5	6	2.80
Runaway Bay	0.85	0.48	7	3	...
Brown's Town	1.82	0.56	10	7	2.99
Alexandria	3.04	0.70	10	5	...
Chewmagna, St. Ann	2.55	1.10	16	6	3.37
Home Castle	1.70	1.40	13	9	2.56
Richmond Pen	2.60	1.00	16	5	...
Mahogany Hall	1.28	0.41	22	6	2.57
Barnstaple	1.16	0.40	10	4	...
Brampton Bryan	...	...	...	...	...
Bryan Castle	1.11	0.43	10	5	1.88
Braco	0.35	0.25	10	2	1.62
Arcadia	0.60	0.60	10	1	1.84
Lancaster	0.90	0.75	10	2	1.92
Harmony Hall	0.89	0.30	10	6	1.74
Vale Royal	0.60	0.50	18	2	2.28
Colchis Pen	1.10	0.45	22	3	2.02
Swanswick	0.77	0.45	10	5	...
Georgia	0.60	0.35	10	4	...
Long Pond	0.83	0.50	10	3	2.18
Hyde Hall	0.84	0.28	10	5	...
Steelfield	0.82	0.62	10	2	2.17
Etingdon	0.68	0.25	10	4	...
Lottery	1.00	0.50	16	3	2.00
Falmouth	1.01	0.31	13	7	1.76
Florence Hall	1.41	0.56	14	6	...
Good Hope	4.03	2.15	23	7	...
Unity	3.86	1.50	10	5	...
Kent	2.58	1.05	10	8	...
Gales Valley	...	...	...	...	...
Canaan	4.27	1.60	10	7	2.23
Content	5.88	1.64	10	10	...
Bellfield	3.20	1.30	10	6	...
Guildbro	4.32	1.10	17	12	1.77
Glasgow	5.91	3.58	16	6	...
Moor Park	3.98	2.30	17	6	1.88
Rose Hall	3.70	1.35	10	5	...
Running Gut	3.21	1.30	10	5	...
Cinnamon Hill	2.50	1.20	10	5	...
Success	2.05	0.80	10	5	...
Montego Bay	2.66	0.75	10	6	1.58
Catherine Hall	3.14	0.90	4	7	1.84
Retirement	3.39	0.82	10	11	...
King Gate	1.94	0.98	10	4	3.18
Round Hill	...	...	...	...	...
Blue Hole	2.43	0.97	10	4	...
Haughton Court	2.05	0.80	10	5	...
Lucea	1.92	1.40	10	3	2.33
Green Island	1.35	0.70	11	2	..
CENTRAL SUB-DIVISION.					
Rio Magno	4.44	1.30	16	5	...
Headworks, Rio Cobre	2.03	2.00	21	5	2.84
Linstead	3.90	1.80	16	5	3.06
Berkshire Hall	1.45	0.33	10	14	2.96
Point Hill	2.35	0.80	14	7	5.25
Marlie Hill	2.13	0.70	21	6	...
Worthy Park	2.02	0.87	16	5	2.84
Croft Hill	...	...	...	...	...
Chapelton	1.50	0.62	12	4	2.70
Danks Works	0.84	0.27	10	4	3.26
Savoy House	1.02	0.27	16	5	4.07
Crooked River	0.35	0.25	11	2	...
Trout Hall	2.00	0.75	15	8	...
Frankfield	...	...	...	...	...
Cave Valley	2.50	1.00	16	5	2.90
Mean	1.96	...	...	...	...

WEST-CENTRAL DIVISION.	MAR., 1916.					SOUTHERN DIVISION.	MAR., 1916.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Whitney ...	3.55	1.50	11	3	4.93	Morant Point L. H. ...	1.62	0.54	10	8	2.11
Mocho, Clarendon ...	...	...	...	...	...	Elliott Hill ...	2.38	0.39	17	14	...
Spaldings ...	3.46	1.52	12	11	...	Pleasant Hill ...	1.91	0.63	10	10	...
Baillieston ...	2.20	1.50	11	3	4.64	East Prospect ...	2.25	1.08	10	5	...
Brokenhurst ...	2.50	0.50	10	8	2.70	Morant Bay ...	1.89	1.04	10	4	1.79
Christiana ...	3.26	1.50	12	6	4.06	Easington ...	1.06	0.60	10	4	2.94
Chudleigh ...	3.20	2.16	12	7	...	Bull Bay ...	0.60	0.60	10	1	0.34
Shooter's Hill ...	3.13	1.78	12	7	...	Gordon Town ...	1.60	0.65	16	4	1.54
Spitzbergen ...	4.37	3.50	12	5	...	Hope Gardens ...	1.48	0.53	30	10	1.90
Kendal, Manchester ...	3.89	2.45	12	5	3.44	King's House Gardens ...	1.23	0.43	30	4	1.26
Marshall's Pen ...	4.20	1.50	12	7	3.85	Melrose ...	1.87	0.93	12	6	...
Mandeville ...	2.51	0.88	20	8	4.28	Halfway Tree ...	1.60	0.80	12	4	1.06
Carlton, Mandeville ...	2.62	0.90	20	7	4.28	Lunatic Asylum ...	0.63	0.32	10	3	0.97
The Hill ...	3.67	2.11	12	8	...	Glenmore Road ...	1.02	0.65	12	5	...
Fairfield, Manchester ...	3.59	1.00	16	10	3.84	Kingston P. W. Office ...	0.79	0.47	12	2	1.05
Ulster Spring ...	3.15	1.00	22	5	3.40	Plumb Point L. H. ...	0.85	0.45	9	3	0.91
Freeman's Hall ...	2.33	0.80	22	5	...	Clifton Pen ...	0.95	0.70	12	2	...
Albert Town ...	1.83	0.80	14	3	...	Quarantine Station ...	1.07	0.55	10	2	...
Lowe River ...	7.77	2.68	16	5	5.54	Spanish Town ...	1.85	1.22	30	8	2.10
Troy ...	4.05	1.25	14	6	6.17	Hog Hole, St. Catherine... ..	2.29	1.20	21	5	2.12
Windsor Pen, Trel. ...	2.76	1.18	10	7	3.07	Hartlands ...	0.38	0.30	10	2	1.75
Medina ...	4.55	2.60	22	6	...	Belmont, Guanaboa Vale ...	1.00	0.55	16	6	...
Wallingford ...	4.50	1.38	14	9	...	Old Harbour ...	1.15	0.60	14	4	2.20
Balaclava Police Station ...	3.37	1.29	14	5	4.74	May Pen ...	1.27	0.60	21	3	2.01
Siloah ...	4.60	0.85	10	9	5.68	Hillside ...	1.68	1.28	21	2	1.41
Appleton Estate ...	...	...	...	...	...	Moreland ...	2.26	1.66	21	2	1.61
Maggotty ...	2.44	0.92	13	8	5.80	Money Musk ...	...	...	...	...	...
Butlers ...	...	...	...	...	...	Dunkley's, Vere ...	0.77	0.35	10	4	1.49
Dromilly Pen ...	...	...	...	...	...	Dry River " ...	0.96	0.50	9	4	...
Spring Vale ...	4.40	1.30	10	6	2.92	Denbigh ...	0.00	...	...	...	2.06
Garland ...	4.85	1.80	21	7	...	Toll Gate ...	1.90	0.84	14	4	...
Mocho, Catadupa ...	6.68	1.72	14	9	...	Woodleigh ...	0.00	...	...	...	...
Springfield, St. Elizabeth ...	3.83	1.42	14	12	1.67	New Yarmouth ...	0.85	0.53	10	3	1.26
Chesterfield, St. James ...	6.45	1.95	19	11	...	Exeter, Vere ...	0.76	0.36	10	4	1.34
Catadupa Rly. Station ...	6.03	2.70	14	11	...	Rhymesbury ...	0.93	0.40	10	5	2.11
Kempshot ...	3.56	1.58	16	8	3.00	Milk River ...	1.00	0.40	13	4	1.66
Cambridge, St. James ...	6.03	2.70	14	11	...	Clarendon Pk. Ry. St. ...	...	...	...	...	...
Ducketts ...	6.73	3.25	14	7	...	Victoria Town ...	2.50	1.28	12	3	2.14
New Market, Police St. ...	3.81	1.47	14	10	...	Hog Hole, S. Manch. ...	2.53	1.00	12	5	...
The Bog, New Market ...	6.74	1.77	14	7	...	Stone's Hope ...	2.45	1.06	13	6	2.64
Kew Park ...	...	...	...	...	...	Newport, Manchester ...	3.10	1.22	12	8	3.03
Knockalva ...	4.78	1.84	14	10	...	Great Valley, Man. ...	2.52	1.88	12	4	2.23
Ramble ...	...	...	...	...	...	Alligator Pond ...	1.53	1.04	12	3	1.73
Petersville ...	6.09	2.03	14	9	5.18	Southfield, St. Elizabeth ...	2.34	0.94	12	6	...
Darliston ...	6.41	1.80	9	12	6.54	Lititz ...	3.07	1.09	13	8	...
Bluefields ...	3.84	1.47	15	8	9.07	Long Hill ...	...	...	...	...	...
Whithorn ...	3.81	1.66	12	12	5.87	Torrington ...	6.84	3.71	12	10	3.47
Water Works Pen ...	4.17	1.65	12	11	...	Bethlehem, St. Eliz. ...	4.09	2.38	12	7	4.25
Great Valley, Han. ...	4.43	1.20	23	6	3.79	Santa Cruz ...	2.21	0.77	25	9	4.26
Prospect Park ...	...	...	...	...	...	Pedro Plains Police St. ...	0.80	0.30	12	3	2.34
Blackheath ...	...	...	...	...	...	Mountainside ...	4.81	3.50	12	6	...
Fontabelle, Westm. ...	...	...	...	...	...	Black River ...	1.82	1.23	12	8	2.59
Belleisle ...	...	...	...	...	...	Font Hill ...	2.55	0.55	13	8	4.09
Morgan's Bridge ...	1.14	0.57	5	6	4.75	Mount Edgecombe ...	4.07	1.58	14	8	4.10
King's Vale Police St. ...	1.15	0.55	11	6	4.91	Sweet River ...	4.10	1.30	23	10	3.54
Mean ...	3.66	...	...	...	...	Windsor, Sav.-la-mar ...	2.83	0.65	23	10	2.90
						Orchard ...	2.89	0.69	23	9	...
						Sav.-la-mar ...	2.27	0.61	23	10	2.63
						Meylersfield ...	...	...	...	...	...
						Little London ...	2.32	1.00	16	7	...
						Retreat ...	3.05	1.64	12	7	3.28
						Negril Point L.H ...	0.97	0.56	15	5	2.34
						Mean ...	1.86	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	MARCH.	
	1916.	Average.
	In.	In.
North-Eastern Division	3.43	4.61
Northern	1.96	2.36
West-Central	3.66	4.18
Southern	1.86	2.22
The Island	2.73	3.34

The rains were very evenly distributed over the Island, each division having its average rainfall.

SHOCKS OF EARTHQUAKE IN MARCH, 1916.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
	hr. min.		
I	...	I	Moy Hall, N. & S. very slight

NOTES.

This shock was from epicentre B 3 due March 1.3.

Montego Bay P.O.

MAXWELL HALL,
Government Meteorologist.

Seach



JAMAICA
WEATHER REPORT

FOR THE MONTH OF
APRIL, 1916.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky ; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.			Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.		7 a.m.	3 p.m.	Max	Min.	Range	Max.	Date.	Min.	Date.	Range
	ft.	in.	in.		°	°	°	°	°	°		°		°
Morant Pt. Light House	8	29.965	29.927		78.2	81.4	83.4	73.6	9.8	86.0	3*	66.0	1*	20.0
Kingston	24	29.946	29.903		74.1	82.8	86.7	71.2	15.5	90.3	10	68.1	9	22.2
Negril Point Light House	33	29.935	29.896		75.7	82.7	85.0	71.6	13.4	87.8	11	64.6	1	23.2
Castleton Gardens	496	..	..		68.5	80.9	85.6	67.6	18.0	90	5*	61	2	29
Hope Gardens†	668	29.946	29.872		74.6	81.4	85.9	63.3	17.6	91	10	65	1*	26
Bavinton, Stony Hill**	1,355	..	..		68.5	77.0	80.5	63.2	14.3	84.0	12*	62.5	3	21.5
Stony Hill Indus. School	1,400	..	..		68.4	77.8	79.8	65.2	14.6	88	10	64	1*	24
Hill Gardens	4,900	25.270	25.239		61.9	63.7	67.1	54.4	12.7	74	10	51	1	23

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.					7 a.m.	3 p.m.			7 a.m.	3 p.m.				
	ft.	°	°	°	in.		miles					L.	M.	U.	L.	M.	U.
Morant Pt. Light House	8	70.8	79	71.4	72	3.17	217	NE	12	E	11	3.1	1.5	1.3	1.9	1.8	1.2
Kingston	24	68.6	83	69.8	65	2.99	169	NNE	4.8	SE	12.4	2.6	1.2	1.8	4.8	1.9	1.2
Negril Point Light House†	33	69.6	81	70.1	63	6.63	203	ENE	7.0	SW	11.2	1.9	1.7	2.0	3.3	4.0	1.0
Castleton Gardens	496	66.5	93	71.5	74	7.40	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	67.2	79	69.4	67	3.52	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,355	65.5	90	68.0	74	8.24	..	NNE	1.4	SSW	5.1	3.7	1.0	1.1	6.6	1.4	0.2
Stony Hill Indus. School	1,400	65.6	90	67.1	69	8.69	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	4,900	53.7	89	61.1	90	6.43	..	..	..	..	..	..	..	..	..	..	..

* and on other days.
† Negril Point Light House.
** Bavinton, Stony Hill.
† Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
Wind 11 p.m. E. 7.6
Mean Min. temp on grass 63°.2

Plumb Point Light House	{ Average No. of Miles of wind per diem	121
	{ Greatest on the 24th	295
	{ Least on the 16th	68

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	APRIL, 1916.				
	Total Fall.	Greatest fall in 24 hours.		Dayson which 0.01 or more fell.	Average.
		Amount	Date.		
	In.	In.			In.
Mauchioneal ...	7.46	2.38	3	11	6.32
Spring Valley, Portland ...	6.66	2.13	25	14	...
Bath ...	7.57	1.84	3	15	5.65
Boston ...	...	...	...	...	...
Moore Town ...	16.70	4.00	16	12	9.77
Port Antonio ...	5.64	1.28	25	18	6.27
Fellowship ...	10.12	2.35	14	19	9.24
Johnson River Bridge ...	5.19	1.82	25	14	4.38
Shrewsbury ...	21.08	7.76	18	18	7.60
Cedar Valley, St. Thos. ...	4.73	1.40	27	8	3.94
Hope Bay ...	7.80	1.90	16	17	...
Moy Hall, St. Thos. ...	3.75	1.45	27	8	3.71
Brooklodge ...	4.23	2.16	27	9	...
Lennox ...	7.80	2.15	26	16	...
Farm Hill ...	6.50	2.50	27	8	5.64
Hill Gardens ...	6.46	2.40	27	16	6.09
Buff Bay ...	9.03	2.27	16	12	5.73
Vinery ...	15.07	4.05	20	13	...
Windsor Castle, Port. ...	6.90	1.65	17	10	...
Greenvale, Portland ...	15.52	4.40	14	15	...
Mt. Holstein ...	6.05	1.40	13	20	6.00
Irish Town ...	5.04	1.45	27	7	5.11
Rose Hill ...	10.46	2.00	27	17	...
Hardware Gap ...	10.75	...	...	...	5.86
Stony Hill Ind. School ...	8.69	1.70	27	17	5.24
Castleton Gardens ...	7.40	1.85	30	14	6.80
Lawrence Tavern ...	6.08	2.15	27	12	4.24
Cedar Valley, Red Hills ...	5.05	1.40	26	12	...
Carew Castle ...	7.91	1.53	27	12	5.05
Agualta Vale ...	4.05	2.28	20	14	4.44
Water Valley ...	10.06	3.98	26	16	4.78
Albany, Ry. Station ...	8.85	3.23	26	12	...
Platfield ...	6.60	3.32	26	13	...
Richmond, St. Mary ...	8.84	4.57	26	10	4.54
Highgate ...	15.08	6.36	26	9	...
Hampstead, St. Mary ...	9.57	3.82	26	11	...
Troja ...	...	...	...	...	...
Guy's Hill ...	8.53	6.19	26	7	...
Lucky Hill ...	7.73	2.15	26	12	...
Rio Hoe ...	7.24	3.49	26	11	4.38
Unity Valley ...	7.74	4.42	26	12	4.61
Moneague ...	7.23	3.60	27	8	4.04
Claremont ...	3.30	1.35	26	7	3.80
Albion, St. Ann ...	7.72	2.49	26	12	4.38
Averham Park ...	6.25	1.85	26	9	4.73
Mean	7.81	...	...	...	...

APRIL, 1916.

NORTHERN DIVISION.	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			In.
Port Maria ...	5.42	1.76	26	13	3.88
Ocho Rios ...	4.78	1.32	26	7	2.83
Bogue, Ocho Rios ...	10.60	2.15	23	14	...
Rockfield ...	8.79	2.60	27	9	...
Drax Hall ...	9.30	2.75	3	12	3.21
Liberty Hill ...	8.63	2.25	20	8	...
St. Ann's Bay ...	11.44	3.14	23	16	3.06
Seville ...	12.65	3.50	3	11	2.79
Richmond Estate ...	...	...	...	...	...
Llandoverly ...	10.46	3.36	3	12	3.39
Runaway Bay ...	6.25	2.30	3	...	...
Brown's Town ...	14.06	2.92	12	11	3.28
Alexandria ...	6.31	2.64	26	9	...
Chewmagna, St. Ann ...	7.13	1.35	26	12	2.87
Home Castle ...	8.40	2.20	22	13	3.23
Richmond Pen ...	5.90	1.50	12	9	3.47
Mahogany Hall ...	4.58	1.14	23	14	3.80
Barnstaple ...	5.50	1.52	22	9	...
Brampton Bryan ...	...	...	...	...	...
Bryan Castle ...	8.00	3.15	20	10	2.12
Braco ...	5.45	2.35	20	11	2.21
Arcadia ...	6.55	1.30	25	10	2.28
Lancaster ...	6.92	1.62	19	10	2.26
Harmony Hall ...	5.31	1.44	20	12	2.07
Vale Royal ...	7.04	2.06	24	9	2.84
Colchis Pen ...	3.43	1.05	11	11	3.08
Swanswick ...	8.23	2.80	25	14	...
Georgia ...	6.23	1.70	25	13	...
Long Pond ...	5.31	1.60	25	11	1.58
Hyde Hall ...	6.38	1.50	25	12	...
Steelfield ...	5.45	1.16	25	11	2.41
Etingdon ...	6.34	1.40	23	11	...
Lottery ...	5.50	1.00	23	10	2.30
Falmouth ...	5.98	1.39	20	12	2.20
Florence Hall ...	6.65	1.37	23	11	...
Good Hope ...	7.05	1.45	25	10	...
Unity ...	7.11	1.57	27	9	...
Kent ...	6.44	1.88	25	11	...
Gales Valley ...	...	...	...	...	...
Canaan ...	8.87	3.03	25	11	3.62
Content ...	6.11	1.32	3	12	...
Bellfield ...	4.35	1.81	25	8	...
Gulbsbro ...	7.09	1.40	25	16	3.25
Glasgow ...	...	...	...	...	...
Moor Park ...	5.61	2.50	24	7	2.99
Rose Hall ...	6.50	1.80	27	8	...
Running Gut ...	6.47	1.95	27	8	...
Cinnamon Hill ...	4.91	1.40	20	8	...
Success ...	4.88	1.90	27	8	...
Montego Bay ...	6.87	2.32	22	12	3.71
Catherine Hall ...	6.77	2.49	22	11	4.16
Retirement ...	6.90	2.12	22	13	...
King Gate ...	4.58	1.95	22	7	3.70
Round Hill ...	...	...	...	...	...
Blue Hole ...	8.17	2.35	22	5	...
Houghton Court ...	4.15	1.10	25	8	...
Luca ...	3.77	1.55	25	7	4.97
Green Island ...	5.05	1.43	17	9	...
CENTRAL SUB-DIVISION.	2.90	2.60	26	2	...
Rio Magno ...	3.45	1.84	27	5	3.62
Headworks, Rio Cobre ...	8.53	6.19	25	7	4.43
Linstead ...	8.87	6.60	26	10	2.40
Berkshire Hall ...	11.69	4.30	26	13	6.07
Point Hill ...	8.47	3.68	30	12	...
Marlie Hill ...	10.21	7.34	27	6	3.44
Worthy Park ...	...	...	...	...	...
Croft Hill ...	8.74	2.98	26	11	3.57
Chapelton ...	7.64	2.97	26	15	4.69
Danks Works ...	7.63	2.72	26	17	4.09
Savoy House ...	10.05	4.50	26	11	...
Crooked River ...	12.14	5.96	26	15	...
Trout Hall ...	...	...	...	...	...
Frankfield ...	...	...	...	...	...
Cave Valley ...	...	...	...	...	...
Mean	7.56	...	...	...	...

WEST-CENTRAL DIVISION.	APRIL, 1916.					SOUTHERN DIVISION.	APRIL, 1916.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Whitney ...	16.30	6.80	27	8	5.58	Morant Point L. H. ...	3.17	0.85	22	14	2.99
Mochio, Clarendon ...	12.00	4.05	26	10	...	Elliott Hill ...	9.16	5.61	4	20	...
Spaldings ...	10.66	3.28	27	13	...	Pleasant Hill ...	8.14	5.40	3	9	...
Baillieston ...	12.50	4.29	20	14	...	East Prospect ...	7.89	4.85	3	11	6.33
Brokenhurst ...	17.00	5.80	28	17	5.25	Morant Bay ...	4.94	2.46	3	10	2.55
Christiana ...	9.09	1.80	18	16	8.10	Easington ...	2.51	0.90	27	8	1.73
Chudleigh ...	12.26	3.30	18	19	6.19	Bull Bay ...	0.76	0.40	21	2	0.85
Shooter's Hill ...	8.84	2.34	26	16	...	Gordon Town ...	4.54	1.16	27	7	3.32
Spitzbergen ...	...	...	...	...	...	Hope Gardens ...	3.52	1.12	27	14	2.84
Kendal, Manchester ...	10.81	3.54	26	12	7.44	King's House Gardens ...	4.39	2.10	27	7	2.48
Marshalls Pen ...	7.07	2.03	26	12	5.90	Melrose ...	4.10	1.42	27	9	...
Mandeville ...	8.60	2.44	26	19	5.96	Halfway Tree ...	5.30	2.70	27	4	1.63
Carlton, Mandeville ...	9.18	2.52	26	19	5.96	Lunatic Asylum ...	2.72	0.55	27	10	1.07
The Hill ...	7.20	2.50	26	14	...	Glenmore Road ...	3.37	0.86	14	12	...
Fairfield, Manchester ...	7.06	1.58	11	17	6.46	Kingston P. W. Office ...	2.99	0.73	27	12	1.01
Ulster Spring ...	12.20	1.50	22	17	6.20	Plumb Point L. H. ...	1.42	0.42	27	7	0.99
Freeman's Hall ...	9.00	1.50	22	16	...	Clifton Pen ...	...	...	...	...	...
Albert Town ...	8.17	1.30	15	17	...	Quarantine Station ...	2.65	0.85	22	5	...
Lowe River ...	14.77	2.15	11	13	5.60	Spanish Town ...	2.89	1.34	26	6	2.30
Troy ...	9.72	2.50	22	9	9.62	Hog Hole, St. Catherine... ..	6.78	3.25	27	5	2.96
Windsor Pen, Trel. ...	8.46	1.98	27	14	6.10	Hartlands ...	4.76	1.72	26	7	2.25
Medina ...	11.86	2.13	18	11	...	Belmont, Guanaboa Vale ...	6.21	3.85	26	12	...
Wallingford ...	14.17	3.20	22	16	...	Old Harbour ...	4.62	2.16	26	4	2.87
Balaclava Police Station ...	14.99	2.03	22	15	9.66	May Pen ...	5.58	4.95	26	4	2.92
Siloah ...	16.58	3.10	23	19	9.16	Hillside ...	6.42	6.17	27	2	2.20
Appleton Estate ...	14.56	2.40	17	18	9.67	Moreland ...	5.51	3.08	26	7	1.60
Maggotty ...	12.57	1.70	30	12	9.39	Money Musk ...	...	...	...	...	...
Butlers ...	12.31	1.50	30	16	...	Dunkley's, Vere ...	6.90	4.50	26	9	2.16
Dromilly Pen ...	5.95	1.34	27	10	...	Dry River " ...	9.26	4.19	27	9	...
Spring Vale ...	8.31	2.00	27	11	5.44	Denbigh ...	4.57	5.50	26	4	2.62
Garland ...	11.48	2.60	29	14	...	Toll Gate ...	9.71	4.37	26	11	...
Mocho, Catadupa ...	11.22	1.72	29	15	...	Woodleigh ...	5.75	4.00	26	4	...
Springfield, St. Elizabeth ...	13.58	2.20	19	19	3.37	New Yarmouth ...	8.53	4.42	26	4	2.31
Chesterfield, St. James ...	6.76	2.00	21	15	...	Exeter, Vere ...	7.65	5.50	27	6	2.22
Catadupa Rly. Station ...	11.65	2.40	17	17	...	Rhymesbury* ...	5.66	2.10	26	9	2.21
Kempshot ...	6.23	2.69	22	16	5.54	Milk River ...	4.10	3.00	26	3	2.25
Cambridge, St. James ...	8.84	2.15	23	13	...	Clarendon Pk. Ry. St. ...	...	...	...	...	...
Ducketts ...	12.51	2.77	17	12	...	Victoria Town ...	7.31	2.55	26	9	3.83
New Market, Police St. ...	13.24	1.90	19	17	...	Hog Hole, S. Manch. ...	8.26	2.00	25	8	...
The Bog, New Market ...	13.22	2.50	17	17	...	Stone's Hope ...	14.11	4.02	26	10	4.13
Kew Park ...	12.61	2.06	23	13	8.27	Newport, Manchester ...	12.15	3.68	26	17	4.96
Knockalva ...	11.42	3.11	23	15	...	Great Valley, Man. ...	6.13	3.52	26	11	4.05
Ramble ...	...	...	...	...	...	Alligator Pond ...	5.05	2.00	13	6	3.20
Petersville ...	11.63	3.17	23	16	7.35	Southfield, St. Elizabeth ...	5.54	1.30	13	10	...
Darliston ...	12.11	2.98	21	22	11.40	Lititz ...	5.67	1.38	13	12	...
Bluefields ...	10.89	2.10	13	15	8.80	Long Hill ...	...	...	...	...	...
Whithorn ...	14.46	2.53	21	19	7.98	Torrington ...	6.32	1.25	26	10	4.53
Water Works Pen ...	17.00	3.40	21	17	...	Bethlehem, St. Eliz. ...	8.75	1.63	13	13	6.30
Great Valley, Han. ...	11.43	3.00	16	10	7.62	Santa Cruz ...	8.93	2.10	22	10	9.34
Prospect Park ...	...	...	...	...	...	Pedro Plains Police St. ...	1.57	0.65	26	6	2.22
Blackheath ...	...	...	...	...	...	Mountainside ...	6.17	1.74	27	14	...
Fontabelle, Westm. ...	8.98	2.94	20	12	5.94	Black River ...	7.30	2.61	26	13	4.18
Belleisle ...	...	...	...	...	...	Font Hill ...	7.25	2.10	30	11	4.40
Morgan's Bridge ...	12.11	2.06	30	15	6.14	Mount Edgecombe ...	6.22	1.95	15	16	5.40
King's Vale Police St. ...	9.35	2.15	23	13	5.90	Sweet River ...	10.35	2.20	20	15	5.70
Mean ...	11.48	...	...	...	...	Windsor, Sav.-la-mar ...	7.42	1.95	20	13	4.99
						Orchard ...	7.50	2.23	20	14	...
						Sav.-la-mar ...	6.74	1.69	20	14	5.29
						Meylersfield ...	...	...	...	...	...
						Little London ...	4.39	1.28	20	12	...
						Retreat ...	6.33	2.10	25	10	5.07
						Negril Point L.H. ...	6.68	3.35	25	9	3.03
						Mean ...	5.87	...	...	...	...

* Gauge overflowed on 26th.

NOTES.				SHOCKS OF EARTHQUAKE IN APRIL, 1916.			
COMPARATIVE TABLE OF RAINFALL.							
(Based upon the "Average" Stations only.)							
DIVISIONAL AND ISLAND RAINFALL.	APRIL.			Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
	1916.	Average.					
	In.	In.					
North-Eastern Division	... 7.81	5.31			hr. min.		
Northern "	... 7.56	3.05		I	...	I	Mt. Holstein, N.W. & S.E.
West-Central "	... 11.48	7.13		29	10.30 p.m.	I	Mt Holstein, N. & S. .003.
Southern "	... 5.87	3.24					
The Island	... 8.18	4.68					
The rains were very evenly distributed over the Island.							

Montego Bay P.O.

MAXWELL HALL,
Government Meteorologist.

No. 455.



N O T E S

OF

HURRICANES, EARTHQUAKES,

And other Physical Occurrences in Jamaica up to the commencement of the Weather Service, 1880, with brief Notes in continuation to the end of 1915.



BY

MAXWELL HALL, M.A., F.R.A.S., F.R. Met. S.,
BARRISTER-AT-LAW.



This Report is a carefully prepared revision of the Introduction to Vol. II. of the Weather Reports dated Jan., 1896. There is only one important correction to be made; in his history (Vol. III., p. 615), Long wrote about a great earthquake 1770, Sept. 3rd, and connected it with the great earthquake in Haiti that year; but Port-au-Prince and many other towns in Haiti were destroyed on June 3rd that year; and there can be no doubt that Long intended to have referred to the great earthquake in Jamaica, 1771, Sept. 3rd, as described by Lord Rodney in his despatches.

But there are several additions, for many of which I am indebted to Mr. Frank Cundall, the Secretary of the Jamaica Institute.

The notes subsequent to the commencement of the Weather Service in 1880 are brief, and refer only to the more noticeable occurrences; for fuller information reference must be made to the monthly Weather Reports themselves.

1916, May 11th.

M. H.

NOTES OF HURRICANES, EARTHQUAKES, AND OTHER PHYSICAL OCCURRENCES IN JAMAICA.

- 1504 Feb. 29th. Eclipse of the Moon seen by Columbus at St. Ann's Bay in Jamaica. This was during his fourth voyage to the West Indies, and he was then in great distress. (Bryan Edwards, Vol. I, p. 155; F. Cundall, (*Journal of the Institute of Jamaica*, Vol. II., p. 40.)

In Keith Johnston's *Physical Atlas*, 1856, there is a list of the principal hurricanes which have occurred in the West Indies, and it is there stated that the English fleet at Jamaica was driven ashore, Oct. 7th, 1670. This may be a mistake; there was a hurricane at Barbados that year; and in Long's *History of Jamaica*, which was printed in 1774, we read:—"The English, from their first settlement in 1655 to 1689, a space of 34 years, never were afflicted with any of these terrible winds." (Vol. I. p. 364.) But Long may have taken his information from a small book, of which there is a copy in the Jamaica Institute, entitled *The present state of Jamaica*; it refers to the year 1675 (see p. 54); and it was printed in London in the year 1683. The following extract, when compared with the information given by Dr. Sloane, will show that the author did not exercise much care in collecting his information:—"This Island has never been troubled with these dreadful hurricanes that so often ruine and afflict the Charibe Islands, Portorico, Hispaniola, Cuba, and many parts of the Main. Here is no great ebb or flood of the sea; we have not observed above a foot difference; nor can any pilot give any certain account of the currents of these seas, they are so various and uncertain; nor can any guess why the hurricanes and earthquakes should never touch Jamaica, since they so often afflict all the Islands and Continent."

- 1689 The storm of 1689 does not seem to have been very severe. It was enlisted in the earlier volumes of the *Jamaica Almanac*, and was afterwards omitted.

The first earthquake of which we have any account was felt by Dr. Hans Sloane at Spanish Town on Sunday, Feb. 19th, 1688, about 8 a.m. There were three light shocks, lasting about one minute altogether, and there was some sound. He writes, "Earthquakes as they are too frequent in Hispaniola where they have formerly thrown down the town of Santo Domingo, so they are too common here also; the inhabitants expect one every year, and some of them think they follow their great rains." (Sloane's *Natural History of Jamaica*, Vol. I. Introd. p. xlv.)

And again, "The Spaniards who inhabited this Island and those neighbouring, built their houses very low; and they consisted only of ground rooms, their walls being made of posts which were as much buried underground as they stood above, on purpose to avoid the danger which attended the manner of building from earthquakes. And I have seen in the mountains afar off bare spots which the inhabitants told me were the effects of earthquakes throwing down part of the hills, which continued bare and steep."

We now approach the Great Earthquake of 1692. Dr. Sloane, referring to Port Royal, writes as follows:—"This point, which was called Point Cagway, where Port Royal stood, was never built upon by the Spaniards while they remained possessors of the Island, for two reasons, as I was informed. The first was the frequency of earthquakes, which, when considerable, would certainly overturn it. The second cause of the aversion of the Spaniards to this place was its being liable to be washed off by the violent sea breezes or souths."* (Introd. p. LIX.) The English, however, built there; and, according to Long, Port Royal "contained at that period upwards of 3,500 inhabitants and 2,000 houses, the greater number of which were of brick, several stories in height, founded close to the very brink of the water on a loose bank of sand. The fort, which then mounted 60 pieces of ordnance, and the rest of the houses, were founded on the rocky part of the peninsula" (Vol. II., p. 141). Long gives the following account of the Great Earthquake:—

- 1692 "June 7th. The year began with very hot dry weather which continued till May, when there was much blowing weather and a great deal of rain till the end of the month; from which time till the earthquake happened, it was excessively calm, hot and dry. The 7th of June was a very hot, clear sunshine day, scarce a cloud appearing, and not a breath of air felt. The Earthquake began at 40 minutes past eleven a.m., with a very small trembling. The second shake was somewhat stronger, accompanied all the while with a hollow, rumbling noise; and immediately after this second shake came on the third and most violent, which continued near a minute."†

* Port Royal is greatly exposed to the South; this last expression means "hurricane winds from the South."

† The three shocks lasted altogether two minutes.

"All the principal streets, which were next to the water sunk at once, with the people in them; and a high rolling sea followed, closing immediately over them. Not less than 1,600 (houses) were thus swallowed up, or shook into a heap of rubbish. Some of the streets were laid several fathoms under water; and it stood as high as the upper rooms of some houses which remained. It was computed that about 2,000 whites and negroes perished in this town alone. The harbour had all the appearance of agitation as in a storm; and the huge waves rolled with such violence as to snap the cables of the ships, drive some from their anchors, and overset others. Among the rest, the Swan frigate, that lay by the wharf to careen, was forced over the tops of the sunken houses, and providentially enabled some hundreds of the inhabitants to save their lives. The fort only, and about two hundred houses escaped without damage. But a part of the neck of land communicating from the point to the Palisadoes, about a quarter of a mile in length, was entirely submerged, with all the houses, which stood very thick upon it.

The water forced its passage through the Salt Pond Hill,* and gushed in torrents from its side at an elevation of 20, and in some places, 30 feet above its base, and continued running for several hours afterwards.

The mountains on each side the river-road† leading from Spanish Town to Sixteen-mile-walk were thrown down in such heaps as to obstruct the passage of the river, and for some time to prevent all communication between these two places.

A great part of a rocky mountain in St. David's fell down, and buried a whole plantation lying at the foot of it. The part from which this huge fragment was detached is now a precipice of solid rock, conspicuous from its height at a great distance, and remains a dreadful monument of that day's catastrophe.

The shock was not less violent in the mountains. Some were even of opinion that they had sunk a little; others that the whole island had somewhat subsided; for they observed that several wells in Liguanea did not require so long a rope, by two or three feet, as they did before the earthquake At the northside above one thousand acres of land are said to have sunk with thirteen inhabitants.

It left not a house standing at Passage Fort; only one at Liguanea; destroyed most of the planters' habitations in the country; and all in St. Jago de la Vega, except what were built by the Spaniards.

During these convulsions which continued with little intermission, though in a slighter degree, for some weeks afterwards, the most offensive stench was emitted from every fissure and opening made in the land near the harbour; the sky became dull and reddish, which indicated a plentiful discharge of vapours from the earth; the weather grew hotter than had been observed before the shock; and such prodigious swarms of musketos infested the coasts as to astonish the inhabitants; the beauty of the mountains was quite effaced, and instead of their lively youthful verdure, they appeared distorted with fragments, bald, and furrowed."

In conclusion we shall quote the preamble of the Act passed by the Assembly of Jamaica in 1693 (5 W. and M):—

"An Act for establishing a Perpetual Anniversary Fast on the Seventh of June.

Forasmuch as it hath pleased Almighty God, the great Creator and Judge of Heaven and Earth, on the seventh day of June, one thousand six hundred and ninety two, justly to punish the inhabitants of this island for the manifold sins and wickednesses committed against His Divine Majesty, by a most terrible and dreadful earthquake, which not only laid waste our estates and places of habitation in general, but also destroyed many hundreds of people; which tremendous judgment was succeeded by a raging sickness and mortality, that few or no families escaped: Now, that so signal a visitation may be had in perpetual remembrance"

1700 Magnetic variation 6° 30' E. at Port Royal according to Dr. Edmund Halley.—(*Phil Trans. R. S.* 1806 part ii. p. 348).

1703 Jan. 9th. Port Royal, which had been partly rebuilt, was burnt down.

May 23rd. Col. T. Handasyde, Acting Governor, wrote home officially, "we have frequent earthquakes which are a great terrour to us."

1712 Aug. 28th. The first great hurricane experienced by the English in Jamaica. No account of it seems to have been preserved.

1714 Aug. 29th. Some men of war were driven ashore during a storm.—(Keith Johnston.)

1722 Aug. 28th. This great hurricane damaged the whole island; the centre passed over Port Royal where the water rose 16 ft. above its usual level. "It began at Port Royal," writes Long, (*Vol. II.* p. 145) "at 8 in the morning and lasted 14 hrs. during which the rain was incessant, and the storm veered all round the compass. In Kingston most of the buildings were thrown down or much shattered. The day preceding it was perfectly calm; but so great a swell at sea that the waves broke over the breastwork at Port Royal and laid all the streets under water. The fort suffered very much; several guns were dismounted and some washed into the sea. The Church and row of houses in the east part of the town were so battered that there remained very little appearance of buildings. In short, above half the town was laid in ruins; and the houses and plantations in all parts of the island suffered considerable damage, except in St. Jago where the Spanish buildings stood the shock unhurt. Very few of the inhabitants lost their lives; but in the harbour it proved more fatal." Part of the squadron was at sea, but out of 50 vessels in port only 4 men-of-war and two traders were saved with the loss of their masts. About 400 lives were lost. After the hurricane there was a calm, and the air was poisoned by the smell of the decaying bodies, and an epidemic broke out.‡

The effect of these storms on the community may be gathered from the fact that Aug. 28th was appointed to be kept as a perpetual fast by the Act 9 Geo. I. ch. 1, passed in 1722. The preamble is as follows:—"Whereas it hath pleased Almighty God, on the twenty-eight (sic) day of August, in the year of Our Lord one thousand seven hundred and twelve, and on the same day in this present year, justly to punish the inhabitants of this island by two most dreadful and amazing storms, which not only laid

* South-west of Port Royal on the opposite side of the channel.

† Bog Walk.

‡ A good account is given by John Atkins in "A voyage to Guinea, Brasil, and West Indies," 1737.

waste the estates and habitations of the inhabitants in general, but also destroyed some numbers of people near the sea-coasts: Now, therefore, that so signal a visitation may be had in perpetual remembrance."

In this year Capt. B. Candler of H.M.S. "Lancaster" observed an eclipse of the moon at Port Royal; and Dr. Halley determined the longitude accordingly to be 5 hr. 6 m. 30 sec. W., (Bellin's *Description Geographique &c.*)

1726 Oct. 22nd. A hurricane swept the east-end of the island, lasting three hours and a half. It blew down many houses in Kingston, Spanish Town and Port Royal, and sunk or wrecked 50 vessels.

1728 Great fire at Port Royal.

1744 Oct. 20th. "Another furious hurricane," writes Long (Vol. II. p. 146), "arose at 6 in the evening (at Port Royal) and continued until 6 in the following morning. A new fort begun at Mosquito Point* was entirely razed; many houses were blown down in the towns and other parts of the island and all the wharves at Port Royal, Kingston, Passage Fort, and Old Harbour were destroyed, and most of the goods swept away.

The inhabitants of Port Royal expected every moment to be swallowed up by an inundation, the streets being all laid several feet under water; but happily their wall withstood the shock and saved them from utter ruin. Their dangerous situation may be imagined; for the wind setting the whole time from the south drove the surge full against this part of the town and with such fury that immense loads of stone and sand were poured over the wall.

Sir Chaloner Ogle who then had the command on this station was fortunately at sea with the major part of the fleet; but there were 9 men-of-war and 96 merchant ships in harbour, 104 of which were stranded, wrecked or foundered; so that only the "Ripon" rode it out with the loss of her masts; and a great number of marines were drowned." A shock of earthquake accompanied the storm. A pestilence followed which proved fatal to a still greater number of lives.

1751 Sept. 2nd. Storm (*Jamaica Almanac.*)

1761 There is no disaster to be recorded this year, which is memorable for the establishment of the first rain-gauge in Jamaica. Long writes "By a measurement taken of the quantity of rain which fell in the parish of Westmoreland in 1761 the whole amounted to 63 inches and about $\frac{3}{4}$ of an inch, Westmoreland being supposed one of the wettest parishes."

The recent annual rainfall at Windsor, Sav.-la-Mar, is 64.31 according to 45 years observations; and at Belle Isle, 82.46, according to 28 years observations; both ending with 1909. It is greatly to be regretted that the register commenced in 1761 was not continued.

1763 Sept. 14th. The magazine at Fort Augusta containing over 2,000 barrels of gunpowder was struck by lightning and blown up.

The introduction of lightning conductors followed Franklin's experiment in 1752: and we may be pretty sure that there was no lightning conductor at Fort Augusta in 1763. It is to be noticed that lightning in Jamaica does most harm in the month of September.

1766 June. A violent earthquake did great damage at Santiago de Cuba: the undulation from N. to S was felt in Jamaica between 11 and 12 p.m. The weather was clear but unusually close. It threw down no buildings here.—(Long III., p. 617.)

1769 "From Oct. 1768 to May 1770, was the largest and severest drought ever remembered in the Island." (Long, Vol. III., p. 615).

1771 Sept. 3rd. A severe shock of earthquake at Kingston and Port Royal.

"Since my letter of the 4th instant, giving their Lordships an account of the violent earthquake which happened the day before, which has been attended with frequent shocks till within these few days, and, in the opinion of the inhabitants, done more damage than any since the great one in 1692, particularly in the towns of Port Royal and Kingston, in the former of which there is not a single house that has not been damaged, I find His Majesty's dockyard has suffered considerably.

* * * There have been nine shocks since the first, but as each has appeared weaker, I hope we shall experience no more of them." (Letter of Admiral Lord Rodney to the Admiralty, dated 19th September 1771, pp. 115 & 116 of *Life and Correspondence of Admiral Lord Rodney*.—*Major-General Mundy.*) Lord Rodney arrived at Port Royal, July 24th, 1771.

In Long's History, III. p. 615, an account is given of a very smart shock of earthquake which is stated to have occurred 1770, Sept. 3rd., about 8 in the morning; "it was most violent in Kingston, where it threw down several kitchen chimneys, &c. This earthquake happily so little injurious to Jamaica originated near Port-au-Prince in Hispaniola, where it was accompanied with eruptions and did infinite damage." But in Southey's Chronological History of the West Indies, Vol. II. pp. 406, 7, the great earthquake occurred in Haiti, June 3rd, 1770, about 7.15 p.m., and in the Introduction to Vol. II. of the J. Weather Reports an attempt was made to set the dates right. But there can be no doubt that while Jamaica would have felt some long rolling waves of earthquake from Haiti on the evening of June 3rd, 1770, which would have done no damage, the historian Long intended to have referred to the great shock in Kingston and Port Royal, 1771, Sept. 3rd., which he does not even mention.

1772 Aug. 31st. A great hurricane passed along Porto Rico, Hispaniola and the south of Cuba. In Jamaica there was not much wind but there were deluges of rain which flooded the rivers to an incredible height and destroyed several bridges.—(Long, III., p. 620).

1779 December. The greater part of Savanna-la-Mar was burnt down; money was voted by the House of Assembly to rebuild the town—(*Journals of Assembly.*)

1780 Jan. 7th, 8.10 a.m. Earthquake at Kingston. About 10 minutes afterwards there was a small undulation of the earth; and at 10.10 a.m. another undulating tremor—(Dr. Benj. Moseley. *A Treatise on Tropical Diseases.*)

May 16. Great fire in Kingston.

May 19. The dark day. On Feb. 12th 1915 there died in Montego Bay an old woman at the great age of 142 years: she was a child at the time of "the dark day" but had a distinct recollection of it. (*New Century Newspaper*, Feb. 13th 1915.)

* Fort Augusta.

1780 In October this year there occurred in the West Indies three great devastating hurricanes:—

The Jamaica hurricane, Oct. 3rd.

The Barbados hurricane, Oct. 10th and 11th.

Admiral Solano's hurricane, Oct. 18th to 22nd.

Colonel Reid has considered these hurricanes very fully in his *Law of Storms*; the following extracts are taken from his great work:—"Three great storms occurred nearly at the same time; and these have been confounded together, and considered as one. The first destroyed the town of Savanna-la-Mar, on the 3rd of October, 1780. The second, and by far the greater one, passed over Barbados on the 10th and 11th of the same month and year. The third dispersed and disabled the Spanish fleet, under Solano, in the Gulf of Mexico, after it had sailed from Havannah, to attack Pensacola."* (p. 289).

"The command of the British fleet in the West Indies was divided. Sir Peter Parker commanded at Jamaica, and was at Port Royal; but Sir George Rodney was off New York in the Sandwich, having gone to the coast of America with a portion of his fleet just before the storms occurred. Of Sir Peter Parker's squadron, the Thunderer, Stirling Castle, Scarborough, Barbados, Phoenix, Deal Castle, Victor, and the Endeavour, were all lost; and nearly the whole of their crews perished. The Berwick, Hector, Trident, Ruby, Bristol, Ulysses, and Pomona, were dismasted.

Of Sir George Rodney's squadron, the Blanche, Andromeda, Laurel, Camelion, and Beaver's Prize, were lost; and the Vengeance, Montagu, Ajax, Alemene, Egmont, Endymion, Albermarle, Venus, and Amazon were dismasted or severely damaged."

The following account of the Jamaica hurricane, Oct. 3rd, is taken from the *Annual Register* — "About 1 p.m. the gale began (at Savanna-la-Mar), from the S.E., and continued increasing with accumulated violence until four in the afternoon, when it veered to the S. and became a perfect tempest, which lasted in force until near eight; it then abated. The sea during the last period exhibited a most awful scene; the waves swelled to an amazing height, rushed with an impetuosity not to be described on the land, and in a few minutes determined the fate of all the houses in the Bay. About ten the waters began to abate, and at that time a smart shock of earthquake was felt. All the small vessels were driven ashore and dashed to pieces. The ships Princess Royal, Henry, and Austin Hall, were forced from their anchors and carried so far into the morass that they will never be got off. The earthquake lifted the Princess Royal from her beam-ends, righted her, and fixed her on a firm bed. This circumstance has been of great use to the surviving inhabitants, for whose accommodation she now serves as a house.

At Lucea Bay only two houses remain; and H.M. sloop Badger, lying in that harbour has lost all her masts, and run on shore.

At Montego Bay the tempest increased to such an amazing degree as at dark to threaten general ruin and destruction. The prodigious flashes of lightning which regularly succeeded each other, was an alleviation. From midnight the storm began to abate."

Lieutenant Archer, of H.M.S. "Phoenix," wrote respecting Montego Bay:—"Many of the houses, where we had been so merry, were so completely destroyed, that scarcely a vestige remained to mark where they stood." The "Phoenix," under Sir Hyde Parker, was driven ashore near Cape Cruz in Cuba just as she was about to founder. Archer crossed back to Jamaica in a rickety open boat and procured assistance for the survivors.

With regard to the destruction of Savanna-la-Mar, it is stated by other authorities that a fearful pestilence broke out shortly after which was due to the putrefaction of the unburied corpses. Gardner in his *History* says that people would suddenly fall down when smitten with the pestilence and die within two hours!

For accounts of the great Barbados hurricane, and the hurricane which destroyed Admiral Solano's fleet we must refer to the *Law of Storms*.

1780 Oct. 29th., 9 p.m. Severe shock in Kingston which lasted 14 sec., *R. Gazette*, 1780 Nov. 4.

1781 Feb. 17th. 9.28 a.m. A shock of earthquake was felt in Kingston (*Jamaica Almanac*.)

Aug. 1. Another hurricane; between the east-end of Kingston and Passage Fort ninety vessels went ashore, and of the fleet which was lying at Port Royal thirty vessels were wrecked.

1784 July 30th. Another hurricane; all the vessels at Kingston and Port Royal but four were wrecked; and the barracks at Up-park Camp were blown down. Two shocks of earthquake were felt.

1785 Aug. 27th. Another hurricane.

1786 Great drought this year. (Beekford p. 63.)

1786 Oct. 20th. Another hurricane, followed by great scarcity of food.

In the Act 29 Geo. III ch. 13, Sec. 4 we read that in consequence of the destruction of many receipts and vouchers for money paid by "five successive hurricanes and two great fires" it became necessary to pass that "Act for the further Raising and Establishing the Credit of this Island, and for preventing vexatious suits at Law." It is dated 1788. Bryan Edwards who wrote about this time clearly points out these "successive" hurricanes (Vol. 1 p. 234); and prefixing the fires according to the notes above we have as the whole series:—

1779—Dec. Sav.-la-Mar burnt down.

1780—May 16.—Great fire in Kingston.

1780—Oct. 3. Hurricane.

1781—Aug. 1 " "

1784—July 30 Hurricane.

1785—Aug. 27 " "

1786—Oct. 20 " "

Florida was ceded by Spain to England in 1763. Spain reconquered it in 1781.

The poet William Cowper referred to these calamities in Jamaica in *The Task: Book II.*

“When were the winds
Let slip with such a warrant to destroy?”

As far as Jamaica is concerned we feel pretty sure that there must have been such visitations during the Spanish occupation of the Island to have induced the Spaniards to neglect Point Cagway as described above by Dr. Sloane; we have noted three great hurricanes during the English occupation before 1780; and although there has not been such a succession since 1780 to 1786, there have been enough hurricanes to satisfy the scientific *dictum* of Bryan Edwards:—What has thus frequently happened will probably happen again!

1795 June 6th. There was a great fire in the town of Montego Bay; it was checked by the blowing up of the Court-house and other buildings; but 110 of the best houses in the town were levelled with the ground. The town was afterwards rebuilt, and the streets were widened and straightened. (Bryan Edwards, V. p. 89.)

1796. Aug. 11th, 3.30 a.m. Smart shock in Kingston, which lasted 3 sec.—*Columbian Magazine*, 1796.

1798 Oct. 4th. Two smart shocks of earthquake were felt all over the Island between 6 and 7 a.m. (*New Jamaica Magazine*.)

1799 Jan. 6th. A smart shock was felt all over the Island at 1.45 p.m. It lasted about half a minute.

1801 Aug. 17th, 5 a.m. Shock of earthquake at Spanish Town.

1802 Sept. 25th, 10 p.m. do. do.

Sept. 26th, 1.30 a.m. do. do.

Sept. 30th, 1.30 a.m. (?) do. do.

Dec. 25th 10.30 a.m. do, do.

These five shocks were taken from *Lady Nugent's Journal*.

1804 In James Robertson's *Map of Jamaica* bearing this date the Magnetic variation was 6° 30' E.

This map was legalized as to its boundaries of Parishes and Counties by 50 Geo. III. ch. 15. It therefore appeared that the variation had not changed since 1700; and Robertson wrote an article on the subject (*Phil. Trans. R. S.* 1806, part ii, p. 348). Since that time the variation has changed rapidly and was 1° 30' E in 1908.

1806 Mar. 4th, 1 a.m. A smart shock of earthquake was felt in Kingston, with rumbling noise and undulating motion from E. to W.—*St. Jago de la Vega Gazette*.

1808 June. Fire in Montego Bay. (Bryan Edwards, V. p. 89).

1812 June 23rd. Shock of earthquake felt in the Parish of St. George.

July 6th. Two smart shocks at 5.10 a.m. were felt in Kingston and the adjacent parishes: they lasted several seconds.

Oct. 12th. A hurricane swept the whole Island: it was a very large *cyclone*: by a cyclone is meant a storm more or less severe in which the wind rotates round the centre of low barometric pressure while the centre advances on its course. All the storms and hurricanes in the West Indies are cyclones; and in general, when we write of a “storm” or “hurricane” we wish to call attention to the loss of life or the damage done to property, and when we write of a “cyclone” we wish to call attention to the natural laws regulating the sweeping of the winds round the centre of low barometric pressure. In the present instance we have no barometric readings, but the direction and changes of the wind at Kingston, Morant Bay and Montego Bay, and the notes as to what occurred at Lucea and Savanna-la-Mar, assure us that the storm was caused by a large cyclone which passed over the Island from Old Harbour to the Dolphin Head.

On the 12th the sea was heard roaring all day, and as night came on the rain fell in torrents, and the wind blew hard from the S.E. In Kingston many outhouses and fences were blown down, and great damage was done to the wharves and shipping. At Port Royal some houses were demolished, and 27 schooners, sloops and smaller boats were destroyed. At Spanish Town but little damage was done. At Salt Hill in the Parish of Port Royal, a piece of land of about 16 acres with a small house on it sank down and moved 300 or 400 yards from its original situation without injuring the house.

At Morant Bay the wind blew hard from the South at 1 a.m. on the 13th, and veered to the West: there was but one vessel in the Bay which was thrown to a considerable distance on the land. The lake at Rio Hoe in St. Ann's rose considerably with the heavy rains. At Lucea it blew a perfect hurricane about midnight, and a few vessels in port were driven ashore; at 9 a.m. on the 13th the wind suddenly ceased.* At Montego Bay the storm commenced from the North, the wind veered to the South-East, and reached its greatest strength at 7 a.m. on the 13th. At Savanna-la-Mar the sea was driven up the main street as far as the Court House, and several houses were blown down.—(*Jamaica Mag.*)

The hurricane was accompanied by a severe earthquake. Several ships in the ports of the north-side went ashore: one vessel in the harbour of Port Maria, which rode out the gale, suddenly lost her hold of the anchorage ground and drifted on the beach. After sounding for the bottom, it was found considerably deeper, and the harbour much discoloured, owing unquestionably to the earthquake. (Dr. Arnold, *Jamaica Physical Journal*, Nov. and Dec. 1835, p. 459.)

1812 Nov. 11. About 10 minutes before 6 in the morning there was a great earthquake, which was felt all over the Island but chiefly at the eastern end. Three shocks succeeded each other rapidly: there were tremblings, concussions, undulations and sound. Great damage was done to the houses in Kingston. At Annotto Bay the anchorage ground sank; the “Experiment” lost her anchor and 90 fathoms of cable which were swallowed up. There had been a slight shock previously at 2.30 a.m. that morning.—(*Jam. Mag.* 1812, p. 364.)

1813 Aug. 1st. It rained all Sat. July 31st and about midnight the wind blew hard. At 7 minutes past one o'clock on the Sunday morning there was a smart shock of earthquake; shortly after the wind became violent “and veered about in different directions during the whole morning,” that is to say the centre of the cyclone passed over Kingston and the direction of the wind worked round the compass in

* Most likely when the wind changed from northerly to southerly, the town being sheltered from the south.

- accordance with the cyclonic theory. The storm did considerable damage to shipping and buildings.—*J. Courant*, 1813, Aug. 2.
- 1813 Aug. 28th. Storm at Savanna-la-Mar. It commenced at 10 a.m. and was at its height at noon; ships were driven ashore and wrecked. The wind was from the E. and S.
Oct. 15th. A shock of earthquake at 1.45 p.m. was felt from Spanish Town to Montego Bay.—*J. Magazine*, 1813.
- 1815 July 13th. Fire at Port Royal.—*Bryan Edwards*, V. p. 90.
Oct. 18th and 19th. A hurricane swept over the eastern half of the island. In the parishes of St. George, St. David and the upper part of Port Royal great damage was done by the wind and the flooding of the rivers, and many lives were lost.
A good account is given in the *J. Physical Journal*, Nov. and Dec., 1835. See also *J. Weather Report*, Vol. IV., No. 352.
- 1818 Nov. 18th, 19th and 20th. A hurricane swept over the western half of the island; great damage was done.
Dec. 6th, 6 a.m. A severe shock was felt in Kingston and throughout the Island.—*Kingston Chronicle*, 1818, Dec. 8.
- 1832 Aug. 7th. Violent storm which lasted only 3 hrs.—(*Keith Johnston*.)
- 1833 Nov. 8th, 7.10 a.m. A shock of earthquake.
- 1834 Sept 7th, 1.30 a.m. A severe shock in Kingston: the worst since 1812.
Oct. 26th, 2.30 a.m. Two severe shocks in Kingston: at 3 a.m. another.
Oct. 27th, 10 a.m. A slight shock: at 7.10 p.m. another.
- 1837 Sept. 26th and 27th. A severe gale which drove three vessels from their moorings in Kingston harbour.—(*Jamaica Dispatch*.) It was part of the cyclone encountered by H.M. Sloop "Racer," of which an account and a chart are given by Colonel Reid in his *Law of Storms*, pp. 133-141; and must have been felt over the whole island.
- 1839 July 26th. A shock of earthquake about 6 a.m.
Nov. 5th. Another shock.
Nov. 12th. Great flood in Montego Bay which carried away several houses. Some lives were lost.
- 1840 Great drought this year.
- 1841 May 31st to June 5th. Heavy rains; floods in different parts of the Island.
- 1842 May 7th, 3.15 p.m. A shock of earthquake was felt throughout the Island. This shock came from Cape Haytien in Hayti where it destroyed the town and caused the death of 3,000 people.
Aug. 25th. Between 5 and 6 p.m. several shocks of earthquake.
- 1843 Mar. 6th, 3 a.m. Shock of earthquake, Kingston.
Mar. 7th, 3.30 a.m., Albion. A smart shock from SW. to NE.*
Mar. 11th, 10.30 p.m. Three shocks of earthquake, Kingston.
Mar. 13th, Between 4 and 5 a.m., another shock, Kingston.
Mar. 20th, 10 p.m. A severe shock causing much alarm, Kingston.
Mar. 21st, 11.30 p.m., Albion. A smart shock.
Mar. 22nd. A slight shock, Albion.
July 2nd. Between 8 and 9 p.m. a shock of earthquake, Kingston.
July 9th, 9.30 p.m., Albion. A slight shock.
July 14th, 12 p.m., Albion. A shock which lasted for about 20 secs.
July 15th, 2 p.m. Another shock, Kingston.
Aug. 26. Fire in Kingston.
Dec. 24th. A slight shock, Albion.
- 1844 Feb. 23rd, 12 p.m. A shock of earthquake, Kingston and Albion.
May 21st, 8.30 p.m. Two shocks, Kingston.
Sept. 21st, 1 a.m. A slight shock, Albion.
Oct. 5th. Stormy weather over the western half of the Island. At Montego Bay and Falmouth the sea rose very high and flooded the towns: at Black River three vessels were driven ashore.
Oct. 22nd, 6 a.m., Albion. A smart shock lasting about 20 secs.
Oct., 29th, 6 a.m. A shock of earthquake, chiefly felt at Montego Bay and Falmouth.
Nov. 3rd, 10.30 p.m., Albion. A slight shock.
- 1845 Severe drought this year.
- 1846 Mar. 4th, 5 p.m., Albion. Two slight shocks from W. to E., with an interval of 1 sec. between them: a rushing sound.
May 27th. A shock of earthquake between 12 and 1 a.m., Kingston.
- 1848 Heavy May rains which produced floods; a number of lives were lost and an immense amount of property destroyed.
May 11th, 3.30 p.m., Albion, two shocks.
- 1849 Aug. 30th, 5 p.m., Albion, two shocks separated by about 1 sec., lasting about 30 secs.
- 1852 July 7th, 6.55 a.m. A shock of earthquake lasting over 3 minutes. (?), Kingston.
- 1856 April. One night several water spouts passed along the foot of Long Mountain near Kingston. The ravine below Torrington bridge was cut and deepened to its "present dimensions" by that one night's rain.—Richard Hill, quoted in the *Victoria Quarterly*, Oct. 1892.
- 1859 Aug. 28th. The great display of the Aurora Borealis occurred this night. It was seen by many persons in Jamaica; and this fact was used by Loomis in his *Meteorology*, p. 184, in determining height of the Aurora above the surface of the earth. The connection between sun-spots, magnetic disturbance, and auroræ was well shown on this occasion: and disturbance on the face of the sun was actually seen in England by Carrington and Hodgson a few days later.
- 1862 Heavy May rains.

* The shocks at Albion, St. Ann, between 1843 and 1873, were recorded by the late Mr. E. G. Barrett.

- 1865 Oct. 31st, 7 a.m. Shock of earthquake at Albion.
- 1867 Mar. 17th, 8.15 a.m. Slight shock, Albion.
Mar. 26th, 1 a.m. do. do.
Nov. 11th, 11.45 a.m. do. do.
- 1870 Feb. 21st, night. Smart shock, Albion.
Heavy rains in Oct., Nov., and Dec.
- 1871 April 27th, 1.30 p.m. Slight shock at Albion.
- 1872 April 25th, 4.15 p.m. do.
Aug. 1st, 7.10 p.m. do.
Dec. 7th, 8 p.m. Shock felt over the west end of the Island.
- 1873 June 14th, 2 p.m. Slight shock at Albion.
June 29th, 11.30 p.m. Two smart shocks at Albion.
Sept. 26th. Shock at Albion.
- 1874 Oct. 31st to Nov. 2nd. A hurricane swept over the eastern half of the Island doing a great deal of damage; the centre of the cyclone passed over St. Ann's Bay, where the wind veered from NE. to SW.
- 1876 Magnetic variation $3^{\circ} 45'$ E at Port Royal.—(Capt. Green, U.S.N., *Nav. of the Carribbean Sea*, Vol. I.)
- 1879 Oct. 8th to 13th. Heavy rains which caused the loss of life and property near Kingston.
- 1880 Aug. 18th. Hurricane. Two cyclones devastated the eastern half of the Island, destroying a number of Churches, Chapels, and other buildings. (*Jamaica Weather Reports*, Vol. I.)
Dec. 30th, 11.58 p.m. No. IV. shock at Port Antonio; felt throughout whole Island except extreme W.
- 1886 June 3rd, 7.7 p.m. No. IV. shock at Boston; felt throughout whole Island except extreme W.
June 27th. Storm: a small cyclone passed along Jamaica from E end to Montego Bay.—(W.R. No. 67.)
Aug. 19th and 20th. A hurricane which followed nearly the same course—(W.R. No. 69.)
- 1903 Aug. 11th. A great hurricane. The centre of the cyclone moved from Morant Point to Montego Bay at the high rate of 21 miles an hour, reaching the latter place at 9.30 a.m. The diameter of the destructive central area was about 40 miles. All along the north coast from Manchioneal to Falmouth the wind was tremendous, and there was considerable loss of life among the falling trees and houses. In many low-lying places the wind drove the sea ashore; and there is reason to suppose that had the centre been moving slowly instead of at a high rate, there would have been appalling loss of life from the invading sea. An enormous amount of damage was done within the storm area; all the large plantations of cocoa palms along the north side and at the east end were destroyed; all banana cultivations, where ever situated, were ruined for a time; and throughout the length and breadth of the island a large proportion of fruit, pimento, and coffee trees were damaged or destroyed.—(W.R. Vol. IV., Introd.)
- 1904 June 13th. Storm near Montego Bay: the river came down in flood and carried away the mason-work bridge.—(W.R. Vol. IV Introd.)
- 1906 April 3rd, 9 to 11 p.m. A curious smoke having a lurid appearance in the moonlight suddenly came over Falmouth and Montego Bay, and the intervening country. It had a sulphurous smell which greatly disturbed the people in the towns: in the country they thought that the smoke smelt like that from cane trash, and they wondered on what estate the fire had occurred. It was followed by a gale from the ENE.
- Two years later the same phenomenon occurred in Cuba, but on a smaller scale. It happened 1908, May 14th at Francisco, Camaguey, when a cloud of smoke was seen approaching from the NE. accompanied by strong winds. The cloud passed along leaving a large quantity of smoke which darkened the atmosphere and left a strong odour of burnt hay.
- 1906 Dec., to 1908, May inclusive. Great drought.
- 1907 Jan. 14th. The great earthquake of Kingston. An account of this earthquake was given in a special Weather Report, No. 337: it was most severely felt along a line from Port Royal to Buff Bay, but it appeared that the chief epicentre was below the sea a few miles south of Bull Bay. This was confirmed by the extraordinary condition in which the W.I. & P. submarine cable was subsequently found. (W.R. No. 365). About 15 miles south of Bull Bay the cable had been dragged a mile from where it had been laid; it had then been broken in two, and the two ends had been carried a mile apart. But for all particulars reference must be made to the two special reports.
- April 13th, 7.8 a.m. Among the large numbers of "aftershocks" the greatest, No. IV on the Jamaica earthquake scale, occurred at this date and hour. It was most useful in helping to determine the period of the "aftershocks" from the chief epicentre, H.
- May 18th, 10 a.m. An aerolite fell into the harbour at Montego Bay. It appeared as a ball of fire which rushed through the bright sky, leaving a long white trail behind it; it came from the SE. with respect to azimuth, but with respect to altitude the information was uncertain, perhaps it was 45° . When it plunged into the sea the water hissed and bubbled from its heat; it fell near a boat at anchor, and the people on the boat, and indeed those on shore, were much alarmed. Another aerolite fell at Cayman Brac, the same day and almost at the same hour, according to *The New Century* newspaper.
- 1908 Jan. 2nd, 8.9 a.m. No. IV shock: Siloah and whole Island.
July 23rd. Magnetic variation in Kingston $1^{\circ} 30'$ E.
- 1909 July 2nd., 11.9 a.m. No. IV shock: Mt. Holstein and the north-east of the Island.
Nov. 4th, to 11th. Heavy flood rains over the Blue and Port Royal Mountains. During these eight days 135 inches of rain fell at Silver Hill Plantation, and 114 inches fell at Farm Hill Plantation. At Radnor as much as 130 inches probably fell, but the gauge overflowed once or twice so that the actual measure was lost. Among the coffee properties, Radnor, Farm Hill and Whitfield Hall suffered most—(W.R. No. 372.)
- 1912 Nov. 18th. Great hurricanes. One cyclone (A) passed south of Jamaica on the 17th doing no harm whatever; but it could not continue the usual WNW course on account of high bar. pressure in Cuba; it increased in violence; and turning eastward, it wrecked Lucea early in the morning of the 18th, having

previously encountered the SS. "Prinz Sigismond" off the NW Point about midnight. Another cyclone (B) developed between the island of Old Providence and the mainland, and did not even attempt a WNW course but made straight for Sav.-la-Mar, wrecking that town during the morning of the 18th. A third cyclone (C) developed in Jamaica and moved along the middle of the Island on the 16th and 17th; and breaking the wires on the 16th, it cut off telegraphic communication between the east and west ends of the Island. In the three parishes of Westmoreland, Hanover and St. James, 19,000 houses were totally destroyed or badly damaged; no doubt many poorly built huts were included in that number, but as the wind got up to 120 miles an hour, a house had to be well constructed to withstand the pressure—(W.R. No. 411.)

1914 Aug. 3rd, 6.25 a.m. No. V shock in the Blue Mountains, No. IV in Kingston, and either No. II or I at the west end. This was the worst shock since 1907, Jan. 14th: the reinforced concrete buildings in Kingston stood it very well.—(W.R. No. 433.)

Oct. 14th, 2.18 a.m. No. IV shock, the Blue Mts. and the whole Island.—(W.R. No. 435.)

Dec. 24th, 10.45 p.m. No. IV shock, Kingston and the whole Island.

1915 Aug. 12th and 13th. Hurricane—The centre of the cyclone passed along the north of Jamaica on a WNW course at the high rate of 19 miles an hour, and the remark made with respect to the 1903 hurricane may be here repeated:—there is reason to suppose that had the centre been moving slowly instead of at a high rate there would have been appalling loss of life from the invading sea. The railway track, and all the roads from Manchioneal to Falmouth were greatly damaged. The centre passed through the Cayman Islands, and wrecked Galveston on the 16th.—(W.R. No. 446.)

Sept. 25th and 26th. A storm whose centre passed along the south of Jamaica on a NW course; but it was 150 miles away and it did little or no damage. Continuing its course it reached New Orleans at 6 p.m., on the 29th and caused great loss of life, and great damage to houses and property.—(W.R. No. 447.)

No. 456.



JAMAICA

WEATHER REPORT

FOR THE MONTH OF

MAY, 1916.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Elevation.	Bar. Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max	Min.	Range	Max.	Date.	Min.	Date.	Range
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.941	29.893	77.5	82.4	84.4	75.5	8.9	87.5	26	69.0	17*	18.5
Kingston ..	24	29.917	29.874	75.8	82.8	86.5	72.4	14.1	91.2	20	70.1	6	21.1
Negril Point Light House ..	33	29.906	29.869	78.2	83.3	85.0	72.6	12.4	87.7	21	69.5	28	18.2
Castleton Gardens ..	496	..	..	70.3	80.5	84.5	69.3	15.2	90	6*	66	4	24
Hope Gardens† ..	668	29.918	29.845	75.3	81.5	85.9	69.1	16.8	90	8*	66	1	24
Bavinton, Stony Hill** ..	1,355	..	..	70.1	77.0	80.4	68.0	12.4	85.0	20	65.0	6	20.0
Stony Hill Indus. School ..	1,400	..	..	70.0	76.9	79.5	68.2	11.3	85	19	65.0	6	20.0
Hill Gardens ..	4,900	25.263	25.228	64.1	65.6	68.5	57.0	11.5	71	1*	55	1	16

STATIONS.	Elevation.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.					7 a.m.	3 p.m.			7 a.m.	3 p.m.				
	ft.	°	°	°	°	in	miles		m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	8	74.3	90	78.3	88	6.97	203	NE	12.5	E	11.0	3.4	1.3	1.1	2.2	1.6	2.0
Kingston ..	24	71.2	86	72.3	71	11.92	180	ENE	5.6	SE	12.0	2.3	0.9	1.9	4.2	1.4	2.3
Negril Point Light House† ..	33	71.7	80	73.4	73	8.70	206	E	8.2	SSE	10.9	2.7	0.9	3.0	3.1	5.4	0.4
Castleton Gardens ..	496	59.6	87	62.5	90	25.13	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	65.4	71	73.1	74	16.89	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill ..	1,355	67.6	92	70.2	79	19.05	..	SSE	1.9	S	3.8	3.0	1.1	1.7	5.6	2.0	0.3
Stony Hill Indus. School ..	1,400	67.6	92	69.6	78	18.70	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	68.2	93	73.7	82	20.50	..	..	..	..	..	..	..	..	..	..	..

* and on other days.

† Negril Point Light House.

** Bavinton, Stony Hill.

† Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
Wind 11 p.m. E. 7.5

Mean Min. temp. on grass 65°.5

Plumb Point Light House { Average No. of Miles of wind per diem 205
{ Greatest on the 12th 506
{ Least on the 6th 72

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.						MAY, 1916.						CENTRAL SUB-DIVISION.					
						Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.							
							Amount	Date.									
						In.	In.			In.							
Manchioneal	...	19.61	7.85	12	11	14.77	...	...	...	...	...	...	...	...	...
Spring Valley, Portland	...	26.00	10.00	13	13	...	...	...	...	...	...	...	...	...	...
Bath	...	14.09	6.30	11	15	12.75	...	...	...	...	...	...	...	...	...
Boston	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Moore Town	...	31.07	10.67	12	9	16.96	...	...	...	...	...	...	...	...	...
Port Antonio	...	14.23	5.68	12	15	16.66	...	...	...	...	...	...	...	...	...
Fellowship	...	19.03	8.40	12	19	20.85	...	...	...	...	...	...	...	...	...
Johnson River Bridge	...	18.09	7.52	11	13	9.52	...	...	...	...	...	...	...	...	...
Shrewsbury	...	15.40	5.34	14	18	13.34	...	...	...	...	...	...	...	...	...
Cedar Valley, St. Thos.	...	26.37	12.50	12	10	9.33	...	...	...	...	...	...	...	...	...
Hope Bay	...	12.65	3.50	14	15	..	...	...	...	...	...	...	...	...	...
Moy Hall, St. Thos.	...	32.00	14.50	12	10	9.44	...	...	...	...	...	...	...	...	...
Brooklodge	...	29.50	14.34	12	15	...	...	...	...	...	...	...	...	...	...
Lennox	...	11.50	2.75	14	14	...	...	...	...	...	...	...	...	...	...
Farm Hill	...	30.09	15.86	12	9	6.57	...	...	...	...	...	...	...	...	...
Hill Gardens	...	20.50	6.75	11	12	10.71	...	...	...	...	...	...	...	...	...
Buff Bay	...	10.76	3.59	4	9	8.15	...	...	...	...	...	...	...	...	...
Vinery	...	9.12	2.55	12	7	..	...	...	...	...	...	...	...	...	...
Windsor Castle, Port.	...	7.25	1.80	14	7	...	...	...	...	...	...	...	...	...	...
Greenvale, Portland	...	10.86	3.00	14	20	...	...	...	...	...	...	...	...	...	...
Mt. Holstein	...	17.40	6.48	5	18	8.14	...	...	...	...	...	...	...	...	...
Irish Town	...	14.22	6.70	12	10	5.24	...	...	...	...	...	...	...	...	...
Rose Hill	...	26.10	10.67	12	12	...	...	...	...	...	...	...	...	...	...
Hardware Gap	...	19.50	..	...	...	12.57	...	...	...	...	...	...	...	...	...
Stony Hill Ind. School	...	18.70	5.70	12	18	9.73	...	...	...	...	...	...	...	...	...
Castleton Gardens	...	25.13	6.30	31	19	12.04	...	...	...	...	...	...	...	...	...
Lawrence Tavern	...	21.37	6.00	12	15	9.12	...	...	...	...	...	...	...	...	...
Cedar Valley, Red Hills	...	19.80	5.58	12	13	...	...	...	...	...	...	...	...	...	...
Carew Castle	...	20.56	6.71	12	19	9.23	...	...	...	...	...	...	...	...	...
Agualta Vale	...	8.11	2.25	12	11	4.36	...	...	...	...	...	...	...	...	...
Water Valley	...	9.58	2.55	12	10	7.23	...	...	...	...	...	...	...	...	...
Albany, Ry. Station	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Platfield	...	19.30	4.75	12	16	...	...	...	...	...	...	...	...	...	...
Richmond, St. Mary	...	10.39	3.41	14	14	7.54	...	...	...	...	...	...	...	...	...
Highgate	...	9.50	3.00	14	9	...	...	...	...	...	...	...	...	...	...
Hampstead, St. Mary	...	10.79	2.75	4	12	...	...	...	...	...	...	...	...	...	...
Troja	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Guy's Hill	...	11.37	4.13	14	11	...	...	...	...	...	...	...	...	...	...
Lucky Hill	...	10.45	2.00	14	12	...	...	...	...	...	...	...	...	...	...
Rio Hoe	...	13.22	3.99	29	13	8.48	...	...	...	...	...	...	...	...	...
Unity Valley	...	16.64	3.81	14	15	9.99	...	...	...	...	...	...	...	...	...
Moneague	...	14.48	3.53	14	13	8.26	...	...	...	...	...	...	...	...	...
Claremont	...	8.53	2.65	14	12	7.34	...	...	...	...	...	...	...	...	...
Albion, St. Ann	...	8.73	1.90	11	14	8.46	...	...	...	...	...	...	...	...	...
Averham Park	...	8.75	1.73	29	12	8.25	...	...	...	...	...	...	...	...	...
Mean	...	17.59	...	...	...	...	Mean	...	11.43	...	...	...	...	...	...

WEST-CENTRAL DIVISION.	MAY, 1916.					SOUTHERN DIVISION.	MAY, 1916.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Whitney ...	25.40	8.50	12	7	10.85	Morant Point L. H. ...	6.97	2.76	11	16	10.76
Mocho, Clarendon ...	18.51	4.00	13	10	...	Elliott Hill ...	7.67	3.68	12	16	...
Spaldings ...	28.91	9.15	13	17	...	Pleasant Hill ...	7.65	4.19	11	10	...
Baillieston ...	31.29	9.45	12	12	10.41	East Prospect ...	8.12	3.05	11	13	6.24
Brokenhurst ...	18.45	6.65	12	10	10.02	Morant Bay ...	8.33	3.25	11	9	8.00
Christiana ...	25.32	9.66	12	19	11.50	Easington ...	20.06	10.45	12	10	6.33
Chudleigh ...	30.32	10.02	12	18	8.38	Bull Bay ...	9.72	5.56	12	3	4.13
Shooter's Hill* ...	...	...	...	...	...	Gordon Town ...	14.22	6.70	12	10	8.23
Spitzbergen ...	...	...	...	...	...	Hope Gardens ...	16.89	9.35	12	14	6.38
Kendal, Manchester ...	36.98	11.05	12	14	10.16	King's House Gardens ...	14.90	8.47	13	9	7.32
Marshall's Pen ...	23.87	8.55	12	10	10.01	Melrose ...	11.35	7.30	12	12	...
Mandeville ...	23.63	9.19	12	11	11.17	Halfway Tree ...	13.90	6.55	12	9	4.87
Carlton, Mandeville ...	21.12	4.25	13	11	11.17	Lunatic Asylum ...	11.87	4.75	12	12	3.57
The Hill ...	29.82	10.06	12	11	...	Glenmore Road ...	15.49	8.01	12	14	...
Fairfield, Manchester ...	20.74	5.70	12	12	7.87	Kingston P. W. Office ...	11.92	6.84	12	11	4.63
Ulster Spring ...	...	...	...	...	...	Plumb Point L. H.† ...	19.85	8.00	12	10	4.80
Freeman's Hall ...	18.73	4.25	12	15	...	Clifton Pen ...	...	...	...	...	...
Albert Town ...	...	...	...	...	...	Quarantine Station ...	9.13	4.35	12	6	...
Lowe River ...	...	...	...	...	...	Spanish Town ...	13.83	5.17	12	8	5.77
Troy ...	...	...	...	...	...	Hog Hole, St. Catherine... ..	16.37	7.30	12	9	6.79
Windsor Pen, Trel. ...	13.68	2.75	12	23	10.96	Hartlands ...	12.15	4.95	12	7	4.34
Medina ...	13.40	2.55	12	15	...	Belmont, Guanaboa Vale ...	17.00	8.16	12	16	...
Wallingford ...	15.44	5.86	12	16	...	Old Harbour ...	11.55	6.32	12	8	5.78
Balaclava Police Station ...	11.12	3.36	12	12	14.41	May Pen ...	14.92	7.05	12	7	6.84
Siloah ...	14.90	3.90	13	16	15.27	Hillside ...	5.88	2.00	14	6	5.95
Appleton Estate ...	...	...	...	...	...	Moreland ...	5.28	1.60	14	9	8.35
Maggotty ...	11.10	2.40	12	14	14.85	Money Musk ...	...	...	...	...	...
Butlers ...	9.18	2.07	12	15	...	Dunkley's, Vere ...	13.18	3.47	12	8	4.50
Dromilly Pen ...	10.43	1.78	14	19	...	Dry River " ...	11.30	3.02	14	10	...
Spring Vale ...	14.37	2.40	13	13	13.57	Denbigh ...	17.00	5.60	12	8	7.61
Garland ...	15.40	2.20	11	13	...	Toll Gate ...	14.88	7.50	11	9	...
Mocho, Catadupa ...	16.06	3.58	13	14	...	Woodleigh ...	18.95	6.00	12	8	...
Springfield, St. Elizabeth ...	13.49	2.70	12	16	...	New Yarmouth ...	9.74	2.58	12	9	4.86
Chesterfield, St. James ...	16.40	2.90	13	15	...	Exeter, Vere ...	...	...	...	...	...
Catadupa Rly. Station ...	17.48	2.40	11	20	...	Rhymesbury ...	...	...	...	...	...
Kempshot ...	10.52	2.45	13	17	10.37	Milk River ...	16.71	4.65	13	4	5.84
Cambridge, St. James ...	15.70	3.11	12	17	...	Clarendon Pk. Ry. St. ...	17.50	7.50	11	8	...
Ducketts ...	16.38	3.50	18	19	...	Victoria Town ...	11.89	3.50	12	7	9.18
New Market, Police St. ...	14.55	1.90	11	16	...	Hog Hole, S. Manch. ...	20.64	7.80	11	7	...
The Bog, New Market ...	20.83	5.10	12	14	...	Stone's Hope* ...	17.87	4.61	12	7	9.30
Kew Park ...	16.05	4.96	12	20	12.91	Newport, Manchester ...	16.38	5.22	12	10	8.37
Knockalva ...	16.94	6.13	12	17	...	Great Valley, Man. ...	13.39	4.33	14	7	6.99
Ramble ...	...	...	...	...	...	Alligator Pond ...	9.56	3.00	11	5	5.86
Petersville ...	20.02	4.46	11	18	12.19	Southfield, St. Elizabeth ...	19.35	4.81	13	10	...
Darliston ...	22.35	5.45	12	20	16.91	Lititz ...	13.47	3.75	13	9	...
Bluefields ...	22.68	5.24	13	19	12.87	Long Hill ...	...	...	...	...	...
Whithorn ...	18.67	5.90	12	20	14.88	Torrington ...	21.38	5.75	13	12	6.76
Water Works Pen ...	18.40	8.40	12	16	...	Bethlehem, St. Eliz. ...	19.29	5.50	13	16	7.64
Great Valley, Han. ...	17.12	4.20	12	9	14.22	Santa Cruz ...	17.66	2.71	12	17	12.81
Prospect Park ...	...	...	...	...	...	Pedro Plains Police St. ...	8.24	2.70	12	10	4.12
Blackheath ...	...	...	...	...	...	Mountainside ...	13.39	3.20	11	11	...
Fontabelle, Westm. ...	15.72	6.09	12	11	...	Black River ...	9.25	3.63	12	15	7.42
Belleisle ...	...	...	...	...	...	Font Hill ...	15.40	3.60	11	13	8.84
Morgan's Bridge ...	15.15	5.64	12	12	12.36	Mount Edgecombe ...	15.97	4.71	11	18	8.23
King's Vale Police St. ...	12.00	1.75	11	13	9.76	Sweet River ...	15.62	8.10	12	13	9.81
Mean ...	19.87	...	...	...	...	Windsor, Sav.-la-mar ...	12.33	6.30	12	13	9.46
						Orchard ...	13.12	6.55	12	11	...
						Sav.-la-mar ...	12.26	6.95	12	13	9.29
						Meylersfield ...	...	...	...	...	...
						Little London ...	13.86	4.25	12	15	...
						Retreat† ...	14.47	5.57	13	10	9.09
						Negril Point L.H. ...	8.70	2.58	13	15	5.88
						Mean ...	13.32	...	...	...	...

* Gauge out of order.

* Gauge leaked on 11th, 12th and 13th.

† Gauge overflowed on 13th.

‡ Cloud-burst on 12th and gauge overflowed, so that more than 8 inches fell in 15 minutes

N O T E S.

COMPARATIVE TABLE OF RAINFALL.

(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	MAY.	
	1916.	Average.
	In.	In.
North-Eastern Division	17.59	10.82
Northern	11.43	7.07
West-Central	19.87	12.49
Southern	13.32	6.94
The Island	15.55	9.33

SHOCKS OF EARTHQUAKE IN MAY, 1916.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
			No earthquakes this month.

The excess of this rainfall above the average was due to a barometric depression to the W and N W of Jamaica, which drew the winds round to the S, and gave us heavy rains on the 11th, 12th and 13th. This continued down-pour brought the rivers down in flood and damaged the roads, and two or three persons lost their lives in attempting to cross swollen streams.

At 3 p.m. on the 12th there was a tremendous down-pour or "cloudburst" at the Plumb Point Light-house. Mr. Plummer writes that an outbuilding was torn from its foundations and smashed to pieces, that trees were thrown down, and that the main building and especially the lighthouse rocked on their bases. It was confined to quite a small area, and was plainly seen from Kingston. At the time of the occurrence there was only about 0.20 inch in the rain gauge; the cloud-burst lasted only 15 minutes; but at the end of that time the gauge which holds 8 inches had overflowed.

The cloudburst was followed by a small whirl-wind.
Mr. Plummer writes that he formerly experienced a similar cloud-burst in Nicaragua, when the town he was in was razed to the ground.

Attention has sometimes been called in these reports to very heavy rains confined to a small locality: but this is the first tremendous "cloud-burst" recorded in Jamaica.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

51.05
JA
Slack

No. 457.



JAMAICA

WEATHER REPORT

FOR THE MONTH OF

JUNE, 1916.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max	Min.	Range	Max.	Date.	Min.	Date.	Range
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.938	29.913	82.3	84.4	86.4	78.8	7.6	88.0	23*	72.5	29	15.5
Kingston ..	24	29.909	29.882	77.0	83.9	89.4	73.5	15.9	94.1	22	71.3	2	22.8
Negril Point Light House ..	33	29.910	29.887	79.6	83.0	87.6	72.9	14.7	91.1	22	69.6	2	21.5
Castleton Gardens ..	496	..	..	70.1	81.5	87.3	69.1	18.2	92	13*	62	16	30
Hope Gardens† ..	668	29.906	29.859	76.1	82.2	89.0	69.1	19.9	93	21*	68	30	25
Bavinton, Stony Hill** ..	1,355	..	..	71.5	78.6	83.6	68.1	15.5	90.0	17	66.0	2	24.0
Stony Hill Indus. School ..	1,400	..	..	72.3	78.0	83.0	68.5	14.5	89	17	66	2	23.0
Hill Gardens ..	4,900	25.277	25.257	65.2	66.3	70.2	58.2	12.0	76	22	57	2*	19

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.					7 a.m.	3 p.m.			7 a.m.	3 p.m.				
	ft.	°	°	°	°	in	miles					L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	8	73.6	75	73.5	70	5.60	274	NE	13	ENE	14.5	2.2	1.5	1.3	1.0	2.5	2.1
Kingston ..	24	70.5	80	72.6	69	1.53	196	NNE	6.1	SE	14.6	1.0	0.5	3.3	4.0	1.1	2.5
Negril Point Light House† ..	33	71.0	75	73.5	74	7.99	201	ENE	7.3	SSE	13.5	0.7	0.8	5.3	2.3	6.3	0.3
Castleton Gardens ..	496	68.3	93	74.1	79	19.30	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	70.3	81	73.1	74	6.55	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill ..	1,355	68.3	90	70.8	77	9.51	..	NNE	1.2	NW	3.4	1.8	1.0	2.3	4.9	1.9	0.6
Stony Hill Indus. School ..	1,400	68.5	87	70.1	76	10.68	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	60.5	87	62.8	90	4.39	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
† Negril Point Light House. Wind 11 p.m. E.N.E. 7.9
** Bavinton, Stony Hill. Mean Min. temp. on grass 65°.4

Plumb Point Light House { Average No. of Miles of wind per diem 143
{ Greatest on the 6th 401
{ Least on the 27th 128

THE RAINFALL.

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JUNE, 1916.						JUNE, 1916.					
NORTH-EASTERN DIVISION.						NORTHERN DIVISION.					
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Manchioneal ...	6.68	2.57	29	8	6.46	Port Maria ...	2.80	1.68	2	12	4.19
Spring Valley, Portland ...	7.48	2.88	29	11	...	Ocho Rios ...	3.13	1.82	29	5	2.34
Bath ...	11.80	4.00	29	21	9.66	Bogue, Ocho Rios ...	4.72	2.21	28	8	...
Priestman's River ...	10.85	2.45	30	17	...	Rockfield ...	6.07	3.29	11	9	...
Moore Town ...	13.40	4.00	11	9	20.23	Drax Hall ...	4.40	1.40	29	13	2.96
Port Antonio ...	10.23	3.48	29	17	11.60	Liberty Hill ...	7.42	2.20	11	8	...
Fellowship ...	10.34	3.50	29	15	16.64	St. Ann's Bay ...	5.10	2.75	11	10	2.96
Johnson River Bridge ...	10.45	3.73	29	17	7.71	Seville ...	6.20	3.09	11	11	2.31
Shrewsbury ...	7.76	1.33	27	13	8.50	Richmond Estate ...	6.05	3.87	11	8	2.24
Cedar Valley, St. Thos. ...	8.10	2.55	29	5	4.85	Llandoverly ...	4.56	3.21	11	5	2.03
Hope Bay ...	6.95	1.35	29	17	...	Runaway Bay ...	0.65	0.54	11	2	...
Moy Hall, St. Thos. ...	6.00	1.50	28	6	5.53	Brown's Town ...	4.39	1.72	8	5	2.68
Brooklodge ...	7.00	1.75	30	9	...	Alexandria ...	6.19	1.59	6	7	...
Lennox ...	7.10	1.80	8	12	...	Chewmagna, St. Ann ...	3.86	0.90	6	12	3.07
Farm Hill ...	6.29	1.70	30	7	3.34	Home Castle ...	2.85	0.80	10	5	2.16
Hill Gardens ...	4.39	1.37	30	7	3.76	Richmond Pen ...	4.35	1.50	28	5	2.90
Buff Bay ...	5.13	1.37	8	10	7.37	Mahogany Hall ...	7.69	1.50	19	13	4.35
Vinery ...	2.72	1.10	8	5	...	Barnstaple ...	...	...	...	...	...
Windsor Castle, Port. ...	2.65	1.20	7	5	...	Brampton Bryan ...	...	...	...	...	...
Greenvale, Portland ...	2.59	0.86	29	5	...	Bryan Castle ...	2.30	1.65	10	5	1.81
Mt. Holstein ...	6.41	1.36	6	15	3.35	Braco ...	0.80	0.80	10	1	1.69
Irish Town ...	5.90	1.60	7	6	1.31	Arcadia ...	2.80	1.70	10	4	2.00
Rose Hill ...	10.84	2.15	2	16	...	Lancaster ...	0.74	0.60	10	2	1.99
Hardware Gap ...	9.50	...	...	...	4.27	Harmony Hall ...	1.34	0.88	10	4	1.56
Stony Hill Ind. School ...	10.69	1.86	1	18	5.39	Vale Royal ...	2.59	0.85	10	9	2.87
Castleton Gardens ...	19.30	3.60	30	8	6.16	Colchis Pen ...	7.94	1.50	9	11	3.18
Lawrence Tavern ...	13.70	2.00	1	19	5.43	Swanswick ...	...	...	...	...	...
Cedar Valley, Red Hills ...	6.61	2.00	7	11	...	Georgia ...	1.56	0.65	10	7	2.27
Carew Castle ...	14.77	1.95	6	19	7.08	Long Pond ...	2.10	0.80	9	9	3.05
Agualta Vale ...	1.52	0.43	8	10	2.96	Hyde Hall ...	...	...	...	...	...
Water Valley ...	1.48	0.40	29	8	3.46	Steelfield ...	1.59	0.88	9	6	2.89
Albany, Ry. Station ...	2.17	0.80	8	5	...	Etingdon ...	...	...	...	...	...
Platfield ...	13.54	2.72	10	15	...	Lottery ...	0.70	0.30	9	4	2.33
Richmond, St. Mary ...	4.17	1.73	29	13	3.68	Falmouth ...	3.09	1.15	9	8	1.64
Highgate ...	2.67	1.00	25	7	...	Florence Hall ...	0.95	0.30	10	5	...
Hampstead, St. Mary ...	2.32	1.07	29	7	...	Good Hope ...	5.37	1.20	8	12	...
Troja ...	...	...	...	...	...	Unity ...	11.31	2.68	8	17	...
Guy's Hill ...	4.46	1.80	29	5	...	Kent ...	...	...	...	...	...
Lucky Hill ...	2.53	0.95	29	7	...	Gales Valley ...	...	...	...	...	...
Rio Hoe ...	7.36	2.61	11	11	4.29	Canaan ...	8.35	2.30	10	14	4.18
Unity Valley ...	3.94	1.70	20	9	5.92	Content ...	...	...	...	...	...
Moneague ...	7.10	1.90	20	9	4.73	Bellfield ...	3.97	2.10	10	6	...
Claremont ...	3.85	1.35	11	8	3.43	Guiltsbro ...	7.19	1.60	10	22	4.55
Albion, St. Ann ...	4.45	0.84	8	14	4.24	Glasgow ...	7.00	2.82	2	9	...
Averham Park ...	3.56	1.05	11	8	3.38	Moor Park ...	4.07	1.81	10	10	2.57
						Rose Hall ...	...	...	...	...	...
						Running Gut ...	...	...	...	...	...
						Cinnamon Hill ...	...	...	...	...	...
						Success ...	...	...	...	...	...
						Montego Bay ...	4.10	0.86	19	11	3.41
						Catherine Hall ...	3.93	0.80	8	9	4.08
						Retirement* ...	6.03	...	29	17	...
						King Gate ...	5.76	3.32	19	10	5.59
						Round Hill ...	...	...	...	...	...
						Blue Hole ...	8.74	1.71	29	14	...
						Houghton Court ...	7.15	2.80	13	9	...
						Lucea ...	8.65	1.90	13	12	5.50
						Green Island ...	13.44	2.40	23	18	...
						CENTRAL SUB-DIVISION.					
						Rio Magno ...	...	...	...	...	...
						Headworks, Rio Cobre ...	3.50	2.40	26	4	3.70
						Linstead ...	10.11	1.65	10	18	5.93
						Berkshire Hall ...	7.77	1.37	11	17	4.65
						Point Hill ...	4.51	0.85	21	13	6.57
						Marlie Hill ...	2.79	1.56	2	4	...
						Worthy Park ...	4.73	1.15	1	7	4.34
						Croft Hill ...	...	...	...	...	...
						Chapelton ...	3.56	0.92	30	11	3.65
						Danks Works ...	4.91	0.92	26	12	3.48
						Savoy House ...	6.12	1.49	26	14	3.15
						Crooked River ...	...	...	...	...	...
						Trout Hall ...	4.91	1.10	30	12	...
						Frankfield ...	...	...	...	...	...
						Cave Valley ...	...	...	...	...	...
Mean ...	7.80	...	...	...	...	Mean ...	4.37	...	...	...	...

* 1.25 inch registered for 28th and 29th

WEST-CENTRAL DIVISION.		JUNE, 1916.					SOUTHERN DIVISION.		JUNE, 1916.							
		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.			Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.			
			Amount.	Date.						Amount.	Date.					
		In.				In.						In.				In.
Whitney	...	4.83	1.38	26	7	3.94	Morant Point L. H.	...	5.60	1.82	30	9	3.23			
Mocho, Clarendon	...	2.18	1.30	30	4	...	Elliott Hill	...	6.19	2.32	30	20	...			
Spaldings	...	5.43	2.90	2	13	...	Pleasant Hill	...	7.97	2.70	29	9	...			
Baillieston	...	6.00	1.80	23	8	4.49	East Prospect	...	10.26	3.05	30	11	3.73			
Brokenhurst	...	...	...	...	...	...	Morant Bay	...	9.47	2.26	29	15	5.80			
Christiana	...	6.75	2.96	5	10	4.37	Easington	...	8.84	3.57	30	7	6.22			
Chudleigh	...	7.17	2.61	2	16	4.31	Bull Bay	...	1.45	1.25	1	2	2.46			
Shooter's Hill*	...	...	...	...	...	...	Gordon Town	...	5.90	1.46	30	8	2.62			
Spitzbergen	...	...	...	...	...	...	Hope Gardens	...	6.55	1.31	23	16	2.72			
Kendal, Manchester	...	7.21	2.10	30	7	5.45	King's House Gardens	...	4.44	1.20	30	8	2.84			
Marshall's Pen	...	4.72	1.33	7	8	4.94	Melrose	...	3.77	1.11	30	11	...			
Mandeville	...	4.34	1.66	30	12	5.91	Halfway Tree	...	3.83	1.10	30	8	1.85			
Carlton, Mandeville	...	4.14	1.50	30	9	5.91	Lunatic Asylum	...	1.94	0.90	30	8	1.51			
The Hill	...	3.81	1.68	29	7	...	Glenmore Road	...	3.05	1.06	23	9	...			
Fairfield, Manchester	...	3.02	1.47	7	11	3.05	Kingston P. W. Office	...	1.53	0.66	30	7	1.81			
Ulster Spring	...	9.05	2.50	1	14	4.45	Plumb Point L. H.	...	2.00	0.83	30	4	1.94			
Freeman's Hall	...	7.63	1.75	1	10	...	Clifton Pen	...	...	...	...	...	...
Albert Town	...	6.23	1.40	13	8	...	Quarantine Station	...	1.95	0.88	30	4	...			
Lowe River	...	7.41	3.75	7	5	3.34	Spanish Town	...	2.24	0.77	30	9	2.48			
Troy	...	12.16	3.41	10	10	7.11	Hog Hole, St. Catherine...	...	3.22	0.87	30	10	2.67			
Windsor Pen, Trel.	...	7.84	1.60	23	20	6.65	Hartlands	...	1.40	0.75	29	2	0.75			
Medina	...	...	...	...	...	...	Belmont, Guanaboa Vale	...	4.42	1.45	26	10	...			
Wallingford	...	8.07	1.55	1	13	...	Old Harbour	...	2.35	2.15	30	2	2.57			
Balaclava Police Station	...	4.84	1.16	2	10	4.71	May Pen	...	3.15	1.19	30	7	3.72			
Siloah	...	12.24	2.60	26	14	6.86	Hillside	...	1.03	0.40	30	3	3.91			
Appleton Estate	...	...	...	...	...	...	Moreland	...	0.67	0.67	29	1	3.44			
Maggotty	...	13.52	3.50	24	12	8.15	Money Musk	...	...	...	...	...	...
Butlers	...	7.18	1.65	26	14	...	Dunkley's, Vere	...	1.78	0.70	30	4	2.32			
Dromilly Pen	...	13.40	2.03	10	16	...	Dry River "	...	1.83	0.94	30	4	...			
Spring Vale	...	...	...	...	...	...	Denbigh	...	2.20	1.40	30	4	2.99			
Garland	...	9.27	1.70	24	14	...	Toll Gate	...	2.92	0.94	28	5	...			
Mocho, Catadupa	...	...	...	...	...	...	Woodleigh	...	2.30	1.50	30	4	...			
Springfield, St. Elizabeth	...	14.16	2.50	19	18	3.16	New Yarmouth	...	1.77	1.07	30	4	2.42			
Chesterfield, St. James	...	...	...	...	...	...	Exeter, Vere	...	...	...	...	...	...
Catadupa Rly. Station	...	13.19	2.42	10	23	...	Rhymesbury	...	...	...	...	...	...
Kempshot	...	7.42	1.40	29	18	6.21	Milk River	...	1.60	1.00	30	4	2.58			
Cambridge, St. James	...	10.90	2.39	10	19	...	Clarendon Pk. Ry. St.	...	3.45	1.50	30	5	...			
Ducketts	...	...	...	...	...	...	Victoria Town	...	2.70	1.86	30	3	2.61			
New Market, Police St.	...	13.44	1.86	8	17	...	Hog Hole, S. Manch.	...	3.58	2.10	30	5	...			
The Bog, New Market	...	11.00	1.59	24	15	...	Stone's Hope	...	4.43	1.95	30	6	4.30			
Kew Park	...	12.85	2.02	13	18	10.33	Newport, Manchester	...	4.13	1.87	30	12	3.73			
Knockalva	...	14.80	1.85	18	21	...	Great Valley, Man.	...	2.81	1.60	30	5	3.27			
Ramble	...	16.45	2.20	21	18	...	Alligator Pond	...	3.51	3.00	30	3	2.43			
Petersville	...	14.57	2.94	2	18	7.17	Southfield, St. Elizabeth	...	5.36	2.83	30	5	...			
Darliston	...	14.61	2.84	1	20	11.87	Lititz	...	2.09	0.80	7	8	...			
Bluefields	...	8.58	0.96	20	16	10.47	Long Hill	...	...	...	...	...	...
Whithorn	...	11.10	2.35	20	17	10.73	Torrington	...	4.00	1.83	30	6	2.64			
Water Works Pen	...	8.80	1.65	9	14	...	Bethlehem, St. Eliz.	...	3.87	1.12	7	6	3.04			
Great Valley, Han.	...	...	...	...	...	...	Santa Cruz	...	4.66	0.94	24	8	5.27			
Prospect Park	...	...	...	...	...	...	Pedro Plains Police St.	...	1.72	1.50	30	2	1.48			
Blackheath	...	...	...	...	...	...	Mountainside	...	2.62	1.18	6	7	...			
Fontabelle, Westm.	...	6.72	1.45	28	13	9.00	Black River	...	5.99	1.63	23	11	4.82			
Belleisle	...	...	...	...	...	...	Font Hill	...	5.70	2.00	23	8	5.73			
Morgan's Bridge	...	14.50	2.62	11	18	11.16	Mount Edgecombe	...	7.73	2.05	1	17	6.93			
King's Vale Police St.	...	18.44	3.12	18	19	10.74	Sweet River	...	5.94	1.20	12	15	7.52			
Mean	...	9.01	...	...	...	...	Windsor, Sav.-la-mar	...	4.55	0.96	11	19	6.91			
							Orchard	...	4.60	0.80	12	16	...			
							Sav.-la-mar	...	4.38	0.76	12	19	4.84			
							Meylersfield	...	...	...	...	...	...
							Little London	...	10.55	2.11	27	18	...			
							Retreat†	...	7.92	1.70	27	14	7.65			
							Negril Point L.H.	...	7.99	2.03	1	16	5.90			
							Mean	...	4.13	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.

(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	JUNE.	
	1916.	Average.
	In.	In.
North-Eastern Division ...	7.80	6.28
Northern " ...	4.37	3.21
West-Central " ...	9.01	7.85
Southern " ...	4.13	3.59
The Island ...	6.33	5.23
The rains were evenly distributed over the Island.		

SHOCKS OF EARTHQUAKE IN JUNE, 1916.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
7	hr. min. 8 50 p.m.	I	Retirement, Mo. Bay.
21	10 38 "	III	Kingston, 0.05 N.W. & S.E.; & N. & S. 3 secs. Halfway Tree Bath; severe Morant Bay Pt. Maria; 12 secs. Pt. Antonio, sharp N.W. & S.E.; 2 secs.
		II	Mt. Holstein, 012 E. & W, 10 secs. Race Course, Siloah, E. & W.
24	4 0 p.m.	I	Siloah.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

THE ISOBARS OVER JAMAICA.

With reference to the isobars over the central part of the Caribbean Sea, if we look at Bartholomew's Physical Atlas or at the Monthly Pilot Charts issued by the U. S. Hydrographic Department, we see that the isobars over Jamaica lie nearly east and west, and that there are about 700 miles between the isobar of 30.0 to the north and 29.9 to the south; these are the annual means; the monthly variations need not be considered at present.

Now with reference to latitude, the Kempshot Observatory is 32 miles north of Kingston; so that on the whole we might expect that the mean annual pressure at Kempshot would be between 0.004 and 0.005 in. higher than at Kingston: and so that the difference between Morant Point and Kingston and between Negril Point and Kingston must be much smaller, and may therefore be neglected.

At these four stations standard mercurial barometers are used, the glass tubes of which have an internal diameter of about half an inch; they have all the Kew certificate; and are tested at times by means of a very good, portable barometer. The elevations of these stations are small, with the exception of Kempshot, and can easily be ascertained; the elevation of Kempshot was taken by the late Mr. Stirling Fisher, C.E., in April, 1879; by the process of levelling over a horizontal distance of about 7 miles he found the elevation to be 1,773 feet by two series which closely agreed; one series was taken going down and the other coming up; and although the close agreement was probably accidental, I know that every care was taken.

Consequently when it was found that there are constant differences between Kingston and the three other stations, month by month, and year by year, the matter required consideration.

The differences no doubt are small; but when a hurricane at a distance is approaching, any small difference may seriously affect the indications; and these differences require explanation.

Taking the mean of the 7 a. m. and 3 p.m. readings for the 7 years, 1908 to 1914 inclusive, we have

			in.
Morant Point	..	..	29.952
Kingston	..	..	29.926
Negril Point	..	..	29.936

And taking the mean of the 7 a. m. and 3 p. m. readings at Kempshot and Kingston for the 15 months 1911 August to 1912 October, inclusive, we have,

			in.
Kempshot	..	..	29.930
Kingston	..	...	29.914

whence the *Reduction to Kingston*:—

Morant Point	...	...	—0.026
Kempshot	...	...	—0.016
Negril Point	...	...	—0.010

It occurred to me that the isobars over Jamaica might be crowded, and near Kingston might be sharply curved northwards; in consequence of the heat of the plains in St. Catherine and Clarendon; this heat produces very strong south-easterly sea-breezes; and they perhaps produce the remarkable break in the rainfall near the middle of the Island which appears in the rainfall map for the year.

This explanation could be tested by a series of barometric readings at the Milk River Baths; and great care was taken in making the test. To begin with, it should be stated that the U.S. and English standard barometers at the Kingston station agree accurately; and then Mr. J. F. Brennan tested the standard at Morant Point by means of the portable barometer; I tested the Kempshot standard by means of another heavy standard; Mr. Brennan took the levels at Milk River,* and finally in April this year he took the barometric readings there.

The following table gives the readings at the five stations reduced to all the usual standards, but not further corrected for diurnal variation.

1916.	Morant Point.	Kingston.	Milk River.	Kempshot.	Negril Point.
	in.	in.	in.	in.	in.
April 11th, 7 a.m. ...	30.082	30.071	30.062	30.066	30.057
“ 11 a.m. ...	.092	.087	.069	.063	.080
“ 3 p.m. ...	.031	.017	.011	.027	.015
“ 7 p.m. ...	.047	.038	.032	.045	.023
12th 7 a.m. ...	.086	.062	.042	.060	.044
“ 11 a.m. ...	.106	30.081	.069	.077	30.074
“ 3 p.m. ...	30.013	29.977	30.001	30.009	29.996
Means ...	30.065	30.048	30.041	30.050	30.041

* The lowest tread of the south flight of stone steps leading up to the main building at the Milk River Baths is only 2½ ft. above mean sea-level. The elevation of the cistern of the portable bar. was 20 ft.

It thus appears that on the 11th and 12th April the isobars ran ESE and WNW over Jamaica, that they were crowded together, and that there was also curvature northwards near Kingston. The crowding near Kingston was such that the pressure increased 0.01 northwards for every 10 miles at right angles to the isobars; and this crowding agrees with that deduced from the results given above for 7 years or so.

We shall therefore accept this explanation at present; and each observer should apply to the proper *Reduction to Kingston* given above when comparing local pressure as affected by a cyclone at a distance; as the cyclone approaches these differences are probably swept away; but the matter is too uncertain at present to allow readings reduced to Kingston to be telegraphed or tabulated.

In fact this correction is similar to another correction which is obvious enough, namely that of allowing for the local wind under normal conditions when affected by a cyclone at a distance.

This crowding of the isobars affects the elevation of all places in Jamaica as determined by bar. readings. The theory was given in W. R. No. 386, and elevations were found for the Cinchona plantation and the Blue Mt. Peak from readings at these places and Kingston; but these places are 10 miles north of Kingston with regard to the isobar, and consequently the elevations there given may be 10 ft. too low. For such work on the Blue Mountains we now know that readings should be taken both at Kingston and at Port Antonio.

Now in W. R. No. 408 an account was given of the determination of the elevation by survey of the Cinchona Plantation by Captain E. J. Pomeroy at my request in 1912; his work was based on that of Captain G. S. Knox, R. E., in 1904: he made it 4,900 ft.; but in a letter dated July 15, 1914, he preferred 4,899 ft. And as the barometric elevation was only 4,891 or 4,892 ft., the difference is now fully explained. And allowing for the isobars, the difference in elevation as determined by the bar. and by direct survey is only 2 ft., giving the elevation of the cistern of the bar. at the Plantation by both methods as 4,900 ft.

M. H.

15/7/16.

551.05
JA Stack

No. 458.



JAMAICA

WEATHER REPORT

FOR THE MONTH OF

JULY, 1916.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards-only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
		ft.	in.	in.	°	°	°	°	°		°		°
Morant Pt. Light House	..	8	29.936	29.918	82.1	83.7	85.8	76.6	9.2	89.0	18	70.0	11* 19.0
Kingston	..	24	29.909	29.897	76.6	83.7	88.1	73.1	15.0	92.5	20	69.3	24 23.2
Negril Point Light House	..	33	29.912	29.893	79.1	84.3	87.5	73.4	14.1	91.1	19	71.1	30 20.0
Castleton Gardens	..	496	..	..	69.8	82.5	86.3	69.2	17.1	91	18*	66	3* 25
Hope Gardens†	..	668	29.915	29.874	75.7	82.4	87.7	69.9	17.8	92	20	68	23* 24.0
Bavinton, Stony Hill**	..	1,355	..	..	71.9	78.2	82.6	68.2	14.4	87.0	19*	65.5	24 21.5
Stony Hill Indus. School	..	1,400	..	..	71.6	78.0	81.6	68.3	13.3	87	18	65	24 22
Hill Gardens	..	4,900	25.269	25.257	63.2	66.6	70.2	57.5	12.7	74	20*	55	1* 19

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.					Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.					7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		ft.	°		°				in.	miles		m.		m.	L.	M.	U.	L.
Morant Pt. Light House	..	8	73.6	78	73.6	72	14.29	271	ENE	15	ENE	14	2.2	2.1	1.6	2.1	2.0	1.5
Kingston	..	24	71.0	83	73.6	72	3.94	197	NE	5.8	SE	12.8	1.4	1.5	1.9	3.3	1.3	2.4
Negril Point Light House†	..	33	72.9	81	74.8	73	5.94	248	ENE	9.3	ESE	13.5	3.2	0.9	3.4	1.0	5.5	0.8
Castleton Gardens	..	496	68.2	93	74.5	77	12.95	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	..	668	69.2	79	72.4	72	6.10	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	..	1,355	67.7	87	70.8	78	9.65	..	NNE	1.6	S	4.5	2.2	2.3	1.9	5.0	2.2	0.5
Stony Hill Indus. School	..	1,400	68.0	88	70.6	78	8.13	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	..	4,900	59.1	87	62.4	84	8.66	..	..	..	..	..	..	..	..	..	..	..

* and on other days.

† Negril Point Light House.

** Bavinton, Stony Hill.

Wind 11 p.m.

Mean Min. temp. on grass

Earth temp. 1 ft. below surface

“ 4 ft. “ “

Average No. of Miles of wind per diem

Greatest on the 1st

Least on the 13th

† Hope Gardens.

E.N.E.

8.1

65.3

78.9

78.1

114

256

71

Bar. read at 9 a.m. and 3 p.m.

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	JULY, 1916.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount	Date.		
	In.	In.			In.
Manchioneal ...	16.77	5.45	22	7	7.46
Spring Valley, Portland ...	22.30	5.00	29	15	...
Bath ...	18.53	4.02	23	19	9.66
Priestman's River ...	23.57	4.85	22	22	...
Moore Town ...	22.20	4.20	29	10	20.23
Port Antonio ...	21.63	7.52	29	19	11.60
Fellowship ...	...	...	...	...	...
Johnson River Bridge ...	17.56	4.32	29	22	7.71
Shrewsbury ...	7.81	1.55	30	11	8.50
Cedar Valley, St. Thos. ...	17.39	2.83	29	16	4.85
Hope Bay ...	...	...	...	...	...
Moy Hall, St. Thos. ...	...	...	...	...	...
Brooklodge ...	14.70	2.65	23	21	...
Lennox ...	9.15	2.00	29	17	...
Farm Hill ...	10.97	2.51	23	9	3.34
Hill Gardens ...	8.66	2.00	23	19	3.76
Buff Bay ...	4.60	1.50	23	15	7.37
Vinery ...	4.15	1.45	23	7	...
Windsor Castle, Port. ...	2.54	1.22	23	7	...
Greenvale, Portland ...	7.49	1.34	11	11	...
Mt. Holstein ...	7.53	1.76	14	24	3.35
Irish Town ...	6.12	1.50	23	7	1.31
Rose Hill ...	13.92	3.26	10	13	...
Hardware Gap ...	14.00	...	...	...	4.27
Stony Hill Ind. School ...	8.13	1.39	12	22	5.39
Castleton Gardens ...	12.95	2.60	31	18	6.16
Lawrence Tavern ...	9.21	1.45	11	18	5.43
Cedar Valley, Red Hills ...	8.33	1.96	15	13	...
Carew Castle ...	...	...	...	...	...
Agualta Vale ...	2.98	0.81	9	10	...
Water Valley ...	4.45	0.80	23	16	3.46
Albany, Ry. Station ...	...	...	...	...	...
Platfield ...	...	...	...	...	...
Richmond, St. Mary ...	4.45	1.30	28	15	3.68
Highgate ...	4.46	1.40	28	9	...
Hampstead, St. Mary ...	2.85	1.14	14	9	...
Troja ...	...	...	...	...	...
Guy's Hill ...	5.10	2.71	4	7	...
Lucky Hill ...	5.03	1.50	28	10	...
Rio Hoe ...	7.66	2.76	12	17	4.29
Unity Valley ...	8.31	4.05	11	13	5.92
Moneague ...	10.28	1.18	17	16	4.73
Claremont ...	6.15	2.60	10	8	3.43
Albion, St. Ann ...	5.17	1.34	10	16	4.24
Averham Park ...	4.39	1.70	12	9	3.38
Mean ...	10.62	3.4	...	...	...

JULY, 1916.

NORTHERN DIVISION.

NORTHERN DIVISION.	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date		
	In	In.			In.
Port Maria	3.31	0.60	15	16	4.19
Ocho Rios	1.39	0.75	10	5	2.34
Bogue, Ocho Rios	...	...	...	...	...
Rockfield	8.88	2.40	10	8	...
Drax Hall	5.85	1.15	31	11	2.96
Liberty Hill	5.44	1.20	28	8	...
St. Ann's Bay	5.75	1.32	10	13	2.96
Seville	5.86	1.05	11	10	2.31
Richmond Estate	...	...	...	...	...
Llandovery	3.67	1.47	16	7	2.03
Runaway Bay	1.33	0.74	20	5	...
Brown's Town	4.78	2.60	10	5	2.68
Alexandria	4.40	1.04	15	8	...
Chewmagna, St. Ann	5.44	1.70	15	14	3.07
Home Castle	2.30	0.85	22	7	2.16
Richmond Pen	4.85	1.60	9	8	2.90
Mahogany Hall	5.37	1.38	28	12	4.35
Barnstaple	4.19	1.25	28	6	...
Brampton Bryan	...	...	...	...	...
Bryan Castle	2.95	1.15	10	6	1.81
Braco	2.60	0.80	10	8	1.69
Arcadia	6.00	2.00	29	9	2.00
Lancaster	4.72	1.18	8	6	1.99
Harmony Hall	4.05	1.47	8	6	1.56
Vale Royal	4.81	1.16	8	8	2.87
Colchis Pen	3.74	1.35	8	9	3.18
Swanswick	5.42	1.50	8	9	...
Georgia	4.12	2.46	8	8	2.27
Long Pond	4.77	2.31	8	9	3.05
Duncans	3.00	1.30	8	5	...
Hyde Hall	4.48	1.08	8	9	2.90
Steelfield	5.57	2.45	8	6	2.89
Etingdon	2.12	1.08	8	4	1.63
Lottery	2.05	0.50	10	7	2.33
Falmouth	2.36	1.16	10	7	1.64
Florence Hall	1.64	0.27	17	5	...
Good Hope	...	...	...	...	...
Unity	7.03	2.23	11	11	...
Kent	1.90	0.85	29	3	1.66
Gales Valley	...	...	...	...	...
Canaan	5.45	1.22	11	14	4.18
Content	5.89	2.45	11	9	2.00
Bellfield	6.38	1.30	29	10	...
Guildsbro	7.26	1.64	8	19	4.55
Glasgow	7.00	2.40	10	8	...
Moor Park	7.27	3.00	8	8	2.57
Rose Hall	3.15	1.20	11	4	1.12
Running Gut	2.69	1.20	11	5	1.25
Cinnamon Hill	2.24	0.92	11	3	1.31
Success	4.44	1.85	11	5	1.46
Montego Bay	3.98	0.73	8	14	3.41
Catherine Hall	6.51	3.12	29	14	4.08
Retirement*	7.47	2.45	8	19	...
King Gate	4.75	1.72	28	7	5.57
Round Hill	...	...	...	...	...
Blue Hole	7.04	4.61	29	7	...
Haughton Court	5.65	1.65	19	8	...
Lucea	5.89	1.47	19	10	5.50
Green Island	7.22	2.01	22	10	...
CENTRAL SUB-DIVISION.					
Rio Magno	7.46	1.73	27	16	...
Headworks, Rio Cobre	3.11	0.80	2	10	3.70
Linstead	10.93	1.90	19	15	5.93
Berkshire Hall	8.36	2.15	29	18	4.65
Point Hill	10.16	2.18	25	15	6.57
Marlie Hill	5.52	1.17	30	12	...
Worthy Park	5.29	1.81	19	10	4.34
Croft Hill	...	...	...	...	...
Chapelton	7.29	1.95	30	17	3.65
Danks Works	7.90	1.78	12	16	3.48
Savoy House	8.23	1.90	12	18	3.15
Crooked River	...	...	...	...	...
Trout Hall	5.89	1.55	12	11	...
Frankfield	...	...	...	...	...
Cave Valley	...	...	...	...	...
Mean	4.88	...	...	...	...

WEST-CENTRAL DIVISION.		JULY, 1916.					SOUTHERN DIVISION.		JULY, 1916.				
		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.			Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
			Amount.	Date.						Amount.	Date.		
	In.	In.			In.		In.	In.			In.		
Whitney	7.45	1.15	29	12	3.94	Morant Point L. H.	14.29	4.95	23	17	3.23		
Mocho, Clarendon	5.26	1.36	15	9	...	Elliott Hill	...	...	...	...	...
Spaldings	7.76	1.20	29	21	...	Pleasant Hill	17.07	5.35	29	17	...		
Baillieston	no record kept.					East Prospect	21.74	7.25	23	16	3.73		
Brokenhurst	9.42	1.45	23	25	6.00	Morant Bay	19.49	6.70	23	23	5.80		
Christiana	7.52	1.35	29	23	4.37	Easington	13.25	3.60	29	16	6.22		
Chudleigh	7.59	1.90	17	22	4.31	Bull Bay	7.25	2.10	30	6	2.46		
Shooter's Hill	...	...	...	...	...	Gordon Town	9.35	1.75	23	8	2.62
Spitzbergen	...	...	...	...	...	Hope Gardens	6.10	...	...	...	...
Kendal, Manchester	6.82	1.88	29	10	5.45	King's House Gardens	7.01	2.30	12	7	2.84		
Marshall's Pen	9.87	1.80	14	17	4.94	Melrose	4.31	1.16	23	8	...		
Mandeville	9.41	1.53	17	23	5.91	Halfway Tree	4.79	1.78	30	8	1.85		
Carlton, Mandeville	8.25	1.35	17	22	5.91	Lunatic Asylum	4.60	2.34	30	9	1.51		
The Hill	6.46	0.94	16	12	...	Glenmore Road	4.94	1.62	30	12	...		
Fairfield, Manchester	5.30	1.36	16	21	3.05	Kingston P. W. Office	3.94	1.20	30	12	1.81		
Ulster Spring	7.09	1.30	29	12	4.45	Plumb Point L. H.	6.66	1.35	30	14	1.94		
Freeman's Hall	2.15	0.50	10	7	...	Clifton Pen	6.30	1.30	30	7	...		
Albert Town	3.30	0.95	19	4	...	Quarantine Station	4.35	1.70	30	10	...		
Lowe River	1.66	0.84	17	3	3.34	Spanish Town	2.06	1.43	30	8	2.48		
Troy	8.35	2.40	15	7	7.11	Hog Hole, St. Catherine	4.47	0.98	30	10	2.69		
Windsor Pen, Trel.	7.71	1.36	11	12	6.65	Hartlands	3.41	1.50	30	6	0.75		
Medina	2.93	0.85	14	10	...	Belmont, Guanaboa Vale	4.14	1.00	30	12	...		
Wallingford	3.08	0.51	14	13	...	Old Harbour	4.73	2.50	30	6	2.57		
Balaclava Police Station	2.69	1.26	17	8	4.71	May Pen	6.52	1.76	31	9	3.72		
Siloah	6.70	1.25	29	12	6.86	Hillside	5.30	1.50	23	6	3.91		
Appleton Estate	...	...	...	...	...	Moreland	6.12	1.58	2	10	3.44
Maggotty	8.41	1.76	12	15	8.15	Money Musk	...	...	...	...	...
Butlers	6.83	1.30	7	10	...	Dunkley's, Vere	4.07	1.10	30	10	2.32		
Dromilly Pen	7.43	1.47	11	11	...	Dry River "	4.61	0.96	31	13	...		
Spring Vale	7.20	2.00	8	6	8.83	Denbigh	3.70	1.60	14	3	2.99		
Garland	10.50	1.70	24	11	...	Toll Gate	4.36	1.69	15	9	...		
Mocho, Catadupa	8.90	1.75	21	15	...	Woodleigh	4.25	1.40	14	4	...		
Springfield, St. Elizabeth	11.34	2.00	15	21	3.16	New Yarmouth	5.17	1.47	16	10	2.42		
Chesterfield, St. James	12.51	1.92	21	17	...	Exeter, Vere	4.20	0.85	1	9	1.24		
Catadupa Rly. Station	12.56	2.00	29	22	...	Rhymesbury	...	...	...	...	...
Kempshot	8.37	2.54	28	17	6.21	Milk River	7.26	2.60	30	7	2.58		
Cambridge, St. James	13.20	2.70	19	19	...	Clarendon Pk. Ry. St.	3.13	1.00	2	9	...		
Ducketts	15.81	3.15	24	16	...	Victoria Town	5.13	1.52	30	8	2.61		
New Market, Police St.	9.21	1.25	26	17	...	Hog Hole, S. Manch.	8.20	1.28	2	13	...		
The Bog, New Market	12.42	2.60	29	16	...	Stone's Hope	10.14	3.47	16	12	4.30		
Kew Park	11.48	1.94	25	19	10.33	Newport, Manchester	7.83	1.22	29	21	3.73		
Knockalva	11.06	1.87	26	17	...	Great Valley, Man.	6.60	1.37	2	14	3.27		
Ramble	12.95	2.25	26	9	...	Alligator Pond	2.80	1.20	2	8	2.43		
Petersville	7.52	1.85	26	14	7.17	Southfield, St. Elizabeth	5.14	2.50	13	9	...		
Darliston	9.75	1.73	29	23	11.87	Lititz	2.88	0.67	29	13	...		
Bluefields	10.34	2.52	30	19	10.47	Long Hill	...	...	...	...	...
Whithorn	9.88	1.36	12	20	10.73	Torrington	4.21	1.15	13	7	2.64		
Water Works Pen	8.95	1.10	24	16	...	Bethlehem, St. Eliz.	4.33	1.20	13	9	3.04		
Great Valley, Han.	...	...	...	...	...	Santa Cruz	6.24	1.30	29	15	5.27
Prospect Park	...	...	...	...	...	Pedro Plains Police St.	2.69	0.67	2	7	1.48
Blackheath	...	...	...	...	...	Mountainside	3.22	1.98	16	6	...
Fontabelle, Westm.	7.04	2.00	11	15	9.00	Black River	5.44	2.04	29	14	4.82		
Belleisle	...	...	...	...	...	Font Hill	6.55	1.75	12	8	5.7
Morgan's Bridge	11.42	2.60	28	15	11.16	Mount Edgecombe	4.77	1.37	29	12	6.9		
King's Vale Police St.	4.33	1.80	28	13	10.74	Sweet River	8.50	1.50	26	16	7.52		
						Windsor, Sav.-la-mar	7.41	1.04	26	15	6.91		
						Orchard	8.08	1.71	26	12	...		
						Sav.-la-mar	6.29	1.66	26	13	5.84		
						Meylersfield	...	...	...	...	...
						Little London	...	...	...	...	...
						Retreat	7.06	2.13	29	12	7.65		
						Negril Point L.H.	5.94	2.80	29	13	5.90		
Mean	7.88	...	...	...	...	Mean	6.86	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.

(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	JULY.	
	1916.	Average.
	In.	In.
North-Eastern Division	10.62	6.28
Northern "	4.88	3.21
West-Central "	7.88	7.85
Southern "	6.86	3.59
The Island	7.56	5.23

At the extreme north-east end of the Island there were heavy rains, as much as 22, 23, or nearly 24 inches falling; but for the rest of the Island the rains were fairly uniform and above the average.

There were three bar. depressions during the month; the first occurred between the 13th and 17th and was due to a disturbance in the eastern Caribbean Sea, which moved NNW over the Mona Passage; the second on the 23rd and 24th was very small and due to a disturbance west of Jamaica, moving NNW; the third on the 29th was due to a disturbance which suddenly generated NW of Jamaica and as suddenly passed away.

On the 12th July at 3 p.m. the schooner "Albert" was lost in fine weather off St. John's Point, near Savanna-la-Mar; the Master, S. W. Bodden, at the helm of the 87 ton vessel suddenly heard a roar, the vessel was up-heaved, spun round, and sank in a hollow. Bodden wrote me in reply to some questions, that he considered it to be a water spout, which he did not see; but water spouts are supposed to raise the water of the sea, and not to produce a whirl-pool to suck a vessel down. All the men but one were saved in the ship's boat which broke loose when the schooner went down.

SHOCKS OF EARTHQUAKE IN JULY, 1916.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
7	hr. min. 1 40 p.m.	II	Orchard, Sav.-la-Mar.
8	5 40 a.m.	I	Orchard " "
	7 50 p.m.	I	Orchard " " loud rumble.
13	8 50 p.m.	I	Brandon Hill, Mo. Bay
19	3 0 p.m.	I	Melrose, Halfway Tree, E. & W.
	4 05 p.m.	II	Mt. Holstein, N. & S. 0'02 double shock; second stronger than first; loud rumble
31	1 55 a.m.	I	Melrose, Halfway Tree, N. & S.

The shocks on the 7th and 8th were due to epicentres C and D.

Those on the 19th to epicentre B; and that on the 31st to epicentre B₂.

Montego Bay P.O.

MAXWELL HALL,
Government Meteorologist.

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No. 459.

NOV - 6 1916



JAMAICA

WEATHER REPORT

FOR THE MONTH OF
AUGUST, 1916.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
		ft.	in.	in.	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.947	29.911	82.0	83.4	86.0	78.1	7.9	83.0	13*	71.0	23	17.0
Kingston ..	24	29.921	29.890	76.0	83.8	88.6	73.5	15.1	92.7	17	70.2	22	22.5
Negril Point Light House ..	33	29.921	29.899	77.6	83.4	87.2	72.9	14.3	89.0	27	69.6	19	19.8
Castleton Gardens ..	496	..	..	71.5	84.4	87.6	70.5	17.1	92	4*	66	18*	26
Hope Gardens† ..	668	29.892	29.828	76.1	81.8	88.6	70.2	18.4	93	12*	67	21*	26
Bavinton, Stony Hill** ..	1,355	..	..	71.9	79.5	83.8	69.0	14.8	83.0	4*	66.0	24	22.0
Stony Hill Indus. School ..	1,400	..	..	71.8	79.7	83.0	68.3	14.7	89	4	66	23*	23
Hill Gardens ..	4,900	25.283	25.259	63.6	67.3	70.1	58.3	11.8	75	5	55	22	20

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall. in.	Wind per diem. miles.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.	7 a.m.	3 p.m.			7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.
		ft.	°	°	°			7 a.m.	3 p.m.	7 a.m.	3 p.m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House†† ..	8	74.0	77	73.4	72	9.68	..	ENE	16	ENE	16	2.5	1.0	2.5	2.4	1.6	1.5
Kingston ..	24	71.6	86	73.3	71	5.92	216	E	6.6	SE	14.5	1.7	0.5	3.7	3.6	1.7	2.6
Negril Point Light House† ..	33	71.2	80	75.3	77	10.65	255	E	9.3	SE	13.4	3.2	0.4	4.0	5.0	2.8	5.5
Castleton Gardens ..	496	69.2	90	73.6	72	15.24	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	69.6	82	75.1	79	17.49	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill ..	1,355	67.7	86	70.2	73	16.81	..	N	2.2	SSW	5.6	3.3	1.0	1.8	5.5	1.9	0.4
Stony Hill Indus. School ..	1,400	68.0	87	70.3	73	19.28	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	58.9	84	63.3	87	30.17	..	..	..	..	..	..	..	..	..	..	..

* and on other days.

† Negril Point Light House.

** Bavinton, Stony Hill.

Wind 11 p.m.

Mean Min. temp on grass

Earth temp. 1 ft. below surface

" 4 ft. "

† Hope Gardens.

E.N.E.

9.0

66.2

79.2

78.3

Bar. read at 9 a.m. and 3 p.m.

†† Plumb Point Light House

{ Average No. of Miles of wind per diem }
{ Greatest on the 1st }
{ Least on the 13th }

Anemometers blown away on the 15th.

THE RAINFALL.

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NORTH-EASTERN DIVISION.	AUGUST, 1916.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount	Date.		
	In.	In.			In.
Manchioneal ...	9.13	2.10	30	13	7.17
Spring Valley, Portland ...	16.94	3.23	20	20	.
Bath ...	21.26	4.20	15	21	10.01
Priestman's River ...	12.08	2.45	15	20	...
Moore Town ...	26.94	6.00	15	17	15.54
Port Antonio ...	14.25	3.10	15	18	10.76
Fellowship ...	18.25	4.38	15	18	14.28
Johnson River Bridge ...	23.22	6.67	15	25	10.02
Shrewsbury ...	16.79	4.92	15	14	8.64
Cedar Valley, St. Thos. ...	30.65	12.50	15	14	9.76
Hope Bay ...	...	...	...	...	...
Moy Hall, St. Thos. ...	50.55	16.75	15	19	7.96
Brooklodge ...	35.30	17.58	15	18	...
Lennox ...	19.25	5.25	15	17	...
Farm Hill ...	40.17	20.80	15	12	5.83
Hill Gardens ...	30.17	16.22	15	17	7.92
Buff Bay ...	9.37	2.36	10	15	5.70
Vinery ...	8.68	2.35	30	13	...
Windsor Castle, Port. ...	7.52	1.90	25	12	...
Greenvale, Portland ...	16.09	5.27	15	15	...
Mt. Holstein ...	17.02	7.59	15	18	6.69
Irish Town ...	17.88	7.00	15	7	5.96
Rose Hill ...	28.41	12.00	15	11	...
Hardware Gap ...	20.50	...	...	...	6.73
Stony Hill Ind. School ...	19.28	8.60	15	21	9.44
Castleton Gardens ...	15.24	7.25	31	15	10.03
Lawrence Tavern ...	11.14	4.00	15	10	8.58
Cedar Valley, Red Hills ...	13.48	4.65	15	11	...
Carew Castle ...	...	...	...	...	...
Agualta Vale ...	9.08	2.18	15	13	3.40
Water Valley ...	10.24	2.92	15	16	4.40
Albany, Ry. Station ...	...	...	...	...	...
Platfield ...	...	...	...	...	...
Richmond, St. Mary ...	11.60	3.19	15	15	4.97
Highgate ...	16.67	3.73	15	14	...
Hampstead, St. Mary ...	10.47	2.68	15	16	...
Troja ...	...	...	...	...	...
Guy's Hill ...	14.69	8.30	15	6	...
Lucky Hill ...	12.83	4.33	15	12	...
Rio Hoe ...	11.66	4.38	15	16	6.27
Unity Valley ...	15.63	3.66	30	17	6.49
Moneague ...	25.03	7.00	30	17	6.03
Claremont ...	15.00	5.60	15	12	5.53
Albion, St. Ann ...	16.60	4.66	15	17	6.10
Averham Park ...	9.16	2.37	30	11	4.86
Mean ...	19.10	...	...	...	...

Gauge overflowed.

AUGUST, 1916.

NORTHERN DIVISION.	Greatest fall in 24 hours.				
	Total fall.	Amount.	Date	Days on which 0.01 or more fell.	Average.
	In	In.			In
Port Maria	7.30	1.57	25	19	4.72
Ocho Rios	7.26	2.04	30	8	2.72
Bogue, Ocho Rios	8.70	3.10	15	10	
Rockfield	8.09	3.95	16	9	
Drax Hall	8.07	2.50	15	10	3.59
Liberty Hill	5.39	2.10	15	11	
St. Ann's Bay	7.61	2.40	15	15	2.65
Seville	8.23	3.30	15	10	3.55
Richmond Estate					
Llandoverly	6.81	2.76	15	10	2.86
Runaway Bay	3.92	2.00	30	6	
Brown's Town	10.09	6.00	15	10	3.98
Alexandria	9.08	7.19	15	6	
Chewmagna, St. Ann	9.61	4.35	15	10	5.24
Home Castle	4.60	1.80	15	19	3.61
Richmond Pen	9.15	4.30	15	6	4.89
Mahogany Hall	7.17	2.08	16	15	5.85
Barnstaple	7.57	2.55	15	9	
Brampton Bryan					
Bryan Castle	3.90	1.75	20	6	2.88
Braco	2.35	0.05	30	7	2.89
Arcadia	5.25	1.60	30	7	3.54
Lancaster	4.12	2.12	30	9	1.21
Harmony Hall	4.02	1.57	30	9	2.57
Vale Royal	5.64	1.67	15	9	4.54
Colchis Pen*†	3.19	1.50	30	7	5.32
Swanswick	7.98	2.20	30	14	
Georgia	5.96	1.55	30	12	3.67
Long Pond	5.77	1.87	30	11	3.59
Duncans	3.90	1.50	30	7	
Hyde Hall	8.35	2.15	15	12	4.00
Steelfield	6.14	1.98	30	8	3.63
Etingdon					
Lottery	8.25	2.00	20	10	3.56
Falmouth	4.38	1.30	30	11	2.77
Florence Hall	6.09	1.28	10	7	
Good Hope					
Unity	7.03	1.80	30	8	
Kent	6.60	1.05	30	10	3.04
Canaan	7.10	2.28	15	12	5.38
Content	5.30	1.48	15	7	4.13
Bellfield					
Guildbro	8.60	2.68	15	17	5.88
Glasgow	10.43	2.23	15	9	
Moor Park	6.35	2.00	15	8	4.75
Rose Hall	3.65	1.00	30	5	1.91
Running Gut	3.31	1.41	30	5	2.59
Cinnamon Hill	3.39	1.40	30	6	2.18
Success	2.90	1.50	30	6	2.12
Montego Bay	7.64	1.44	15	14	5.63
Catherine Hall	7.52	1.90	15	12	6.08
Retirement†	6.48	1.50	30	14	
King Gate	7.02	2.00	15	11	5.82
Round Hill					
Blue Hole	11.29	2.85	15	12	
Haughton Court	10.45	3.50	15	12	
Lucea	11.30	1.60	30	13	6.86
Green Island	14.45	3.23	15	16	
CENTRAL SUB-DIVISION.					
Rio Magno	18.09	6.30	15	11	
Headworks, Rio Cobre	10.19	3.75	15	9	5.75
Linstead	20.45	5.30	15	19	
Berkshire Hall	17.02	5.15	15	18	5.51
Point Hill	18.10	6.00	15	10	
Marlie Hill	17.79	5.87	15	13	
Worthy Park	16.11	5.08	15	12	5.49
Croft Hill	18.31	10.60	15	10	
Chapelton	16.94	5.50	15	14	6.81
Danks Works	16.25	5.29	15	17	5.84
Savoy House	16.65	5.38	15	18	6.04
Crooked River					
Trout Hall	17.15	7.50	15	17	
Frankfield					
Cave Valley					
Mean	7.57				

† Gauge blown over on 15th.

WEST-CENTRAL DIVISION.		AUGUST, 1916.					SOUTHERN DIVISION.		AUGUST, 1916.				
		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.			Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
			Amount.	Date.						Amount.	Date.		
	In.	In.			In.		In.	In.			In.		
Whitney	21.60	6.10	15	12	8.72	Morant Point L. H.	9.68	1.88	20	20	5.31		
Mocho, Clarendon	18.61	5.40	15	14	...	Elliott Hill	...	...	...	...	...
Spaldings	22.66	7.75	15	15	...	Pleasant Hill	13.27	2.87	30	18	...		
Baillieston	...	...	...	...	...	East Prospect	14.70	2.65	9	20	7.33
Brokenhurst	...	...	...	...	...	Morant Bay	18.77	3.10	15	22	5.68
Christiana	17.10	5.45	15	13	6.44	Easington	19.57	3.75	15	16	6.17		
Chudleigh	22.42	7.60	15	18	9.01	Bull Bay	7.60	2.15	22	6	2.82		
Shooter's Hill	...	...	...	...	...	Gordon Town	21.76	9.54	15	9	4.47
Spitzbergen	...	...	...	...	...	Hope Gardens	17.49	...	...	...	5.29
Kendal, Manchester	29.57	6.50	30	17	6.80	King's House Gardens	10.89	4.00	15	9	5.67		
Marshall's Pen	27.85	10.44	30	17	8.38	Melrose	11.53	3.97	30	12	...		
Mandeville	28.40	10.58	30	17	8.03	Halfway Tree	9.87	3.65	30	10	3.54		
Carlton, Mandeville	24.40	8.75	30	18	8.03	Lunatic Asylum	7.47	2.80	30	13	2.59		
The Hill†	26.48	10.33	30	14	...	Glenmore Road	9.51	3.83	30	14	...		
Fairfield, Manchester	16.62	5.28	30	18	5.37	Kingston P. W. Office	5.92	2.04	30	13	3.88		
Ulster Spring	19.60	8.50	15	10	6.91	Plumb Point L. H.	5.50	2.05	30	10	3.50		
Freeman's Hall	12.10	5.55	15	10	...	Clifton Pen	11.75	4.75	15	10	...		
Albert Town	6.01	2.50	15	7	...	Quarantine Station	5.96	2.28	30	9	...		
Lowe River	15.21	7.15	15	12	7.19	Spanish Town	10.01	3.28	30	11	...		
Troy	12.05	4.20	15	8	10.07	Hog Hole, St. Catherine...	5.18	2.49	30	5	4.53		
Windsor Pen, Trel.	10.10	3.00	30	12	8.42	Hartlands*	11.10	2.80	23	7	3.21		
Medina	8.73	4.41	30	13	...	Belmont, Guanaboa Vale	16.80	4.73	15	15	...		
Wallingford	...	...	...	...	...	Old Harbour	11.55	2.80	21	9	...
Balaclava Police Station...	11.01	4.07	15	...	7.02	May Pen	12.14	5.30	30	7	4.79		
Siloah*	13.05	2.00	8	16	11.60	Hillside	...	...	...	...	...
Appleton Estate	...	...	...	...	...	Moreland	10.08	3.80	20	11	6.50
Maggotty	11.68	2.18	15	12	10.65	Money Musk	...	...	...	...	...
Butlers	10.51	2.45	8	15	...	Dunkley's, Vere	12.50	3.76	15	11	4.25		
Dromilly Pen	10.06	2.00	30	10	...	Dry River "	10.40	2.62	15	10	...		
Spring Vale	13.90	3.50	7	7	11.61	Denbigh	...	...	...	...	...
Garland	14.90	5.50	15	7	...	Toll Gate	14.32	4.92	30	17	...		
Mocho, Catadupa	17.60	6.00	15	14	...	Woodleigh	...	...	...	...	...
Springfield, St. Elizabeth	15.70	3.30	30	16	4.74	New Yarmouth	11.86	3.57	15	7	3.86		
Chesterfield, St. James	...	...	...	...	...	Exeter, Vere	8.20	2.60	30	11	3.64
Catadupa Rly. Station	16.34	3.88	15	18	...	Rhymesbury	...	...	...	...	...
Kempshot	7.44	1.78	15	12	8.61	Milk River	10.80	5.50	30	4	3.26		
Cambridge, St. James	13.23	4.22	15	16	...	Clarendon Pk. Ry. St.	14.94	5.25	30	11	...		
Ducketts	14.37	3.84	15	15	...	Victoria Town	14.33	8.15	30	9	4.05		
New Market, Police St.	13.47	2.03	15	17	...	Hog Hole, S. Manch.	17.41	6.18	30	12	...		
The Bog, New Market	15.29	5.12	15	11	...	Stone's Hope	17.08	4.48	30	13	5.99		
Kew Park	12.24	4.25	15	19	11.65	Newport, Manchester	23.38	8.45	30	18	5.39		
Knockalva	11.78	3.93	15	17	...	Great Valley, Man.*	11.60	3.00	15	15	4.49		
Ramble	15.90	5.50	15	9	...	Alligator Pond	...	...	...	...	...
Petersville	12.89	5.42	15	18	10.56	Southfield, St. Elizabeth	17.50	5.34	23	12	...		
Darliston	18.13	5.82	15	18	14.62	Lititz	11.60	3.27	30	13	...		
Bluefields	...	...	...	...	...	Long Hill	...	...	...	...	...
Whithorn	13.67	2.02	7	19	11.74	Torrington	15.36	5.45	15	11	4.55		
Water Works Pen	16.85	3.60	15	16	...	Bethlehem, St. Eliz.	14.00	4.50	23	13	4.99		
Great Valley, Han.†	16.10	4.20	15	10	11.79	Santa Cruz	12.87	3.80	22	14	8.62		
Prospect Park	...	...	...	...	...	Pedro Plains Police St.	9.76	3.65	23	8	2.53
Blackheath	...	...	...	...	...	Mountainside	9.86	4.79	23	9	...
Fontabelle, Westm.	...	...	...	...	...	Black River	11.80	3.76	20	14	5.95
Belleisle	...	...	...	...	...	Font Hill*	8.85	2.15	20	10	6.06
Morgan's Bridge	18.70	5.76	15	16	11.70	Mount Edgecombe	9.32	1.93	15	15	8.19		
King's Vale Police St.	7.27	3.90	15	15	10.76	Sweet River	12.10	2.72	7	16	8.75		
						Windsor, Sav.-la-mar	7.97	0.90	24	18	7.38		
						Orchard	13.99	3.95	15	16	...		
						Sav.-la-mar	12.09	3.16	15	18	7.49		
						Meylersfield	...	...	...	...	...
						Little London	9.12	2.70	15	14	...		
						Retreat	10.24	3.15	15	13	8.70		
						Negril Point L.H.	10.65	2.61	15	16	6.76		
Mean	16.67	...	...	...	...	Mean	12.01	...	...	...	...

Gauge blown over on 15th.

† Gauge overflowed on 15th.

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	AUGUST.	
	1916.	Average.
	In.	In.
	North-Eastern Division	19.10	7.71
Northern	7.57	4.83
West-Central	16.67	9.88
Southern	12.01	5.14
The Island	13.84	6.89

SHOCKS OF EARTHQUAKE IN AUGUST, 1916.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
	hr. min.		
	No	earthquakes this month.	

This heavy rainfall was due to the hurricane of August 15th, which passed along the south side, and to the bar. depression of August 30th along the north side of Jamaica; but the rainfall was very irregular. At Moy Hall on the Blue Mountains over 50 inches fell, 17 inches falling on the 15th; at Mandeville over 28 inches fell, 10 or 11 inches falling on the 30th; while at several places in Trelawny there were only 3 or 4 inches for the whole month.

The hurricane of August 15th, has been considered in a special Weather Report No. 460: but there were two other disturbances this month: on the 22nd and on the 30th; the latter caused considerable anxiety as it passed close to Jamaica. The following notes have reference chiefly to the warnings issued.

On the 22nd August at 1.45 p.m. the following cablegram was received and circulated in Jamaica:—

"Tropical disturbance of small intensity passed over Porto Rico this morning apparently moving N of W." Subsequent news informed us that as a cyclone of average intensity it passed over the island of Dominica on the night of Aug. 21st, doing a great deal of damage. The bar. fell to 29.10, and the wind rose to 70 miles an hour: the rivers were in flood and swept away houses. It passed over Porto Rico with a wind velocity of 90 miles an hour, which unroofed several houses and greatly damaged the tobacco and grape-fruit cultivation: but there was no loss of life as there was in Dominica.

The storm did not affect the bar. in Jamaica that day; but on the 23rd when it was about 400 miles away, the bar. fell about a tenth of an inch below the mean, and the wind and cloud-drift swung round to the NW, as the storm centre move along a course south of Turks Islands.

On the 29th August at 12.30 p.m. the following circular was telegraphed round Jamaica:—

"The United States Weather Bureau reports a tropical disturbance passing westward south of and near to Porto Rico. Consequently as this disturbance may maintain a westerly track all shipping advised to observe the necessary precaution. There, however, does not appear any cause for alarm during the next twenty hours. Another circular will be issued about 5 p.m."

At 1.15 p.m. a similar notice was received from the Wireless station; and at 5 p.m. the local Weather Service issued the following:—

"Conditions reported about noon with regard to tropical disturbance apparently remain unchanged. Local barometer continues to fall slowly."

On the 30th August the four following circulars were issued by the local Weather Service:—

At 8.15 a.m. from the Wireless Station:—"The position of tropical disturbance reported Tuesday morning (29th) as being south of Porto Rico is still indefinite other than it is probably near Hayti moving westward. The wind at San Juan continues from south-east but diminishing in force. Kingston barometer low, therefore precautions are still necessary."

At 12 noon from Washington:—"Tropical disturbance now south-east of and short distance from Jamaica, moving westward. Every precaution necessary. Shipping warned."

At 2 p.m.:—"Wireless message from Washington at 2 p.m. stated that barometric pressure again falling over the eastern Caribbean. Although there is as yet no definite information with respect to the formation of a fresh disturbance, it is considered dangerous to navigation. Ships from the Yucatan Channel eastward to Jamaica during the next twenty-four hours warned."

This was the last from Washington; and at 8 p.m. the local Weather Service issued the following:—"Tropical disturbance appears to have curved in a north-westerly track instead of continuing in a westerly direction east of Jamaica, late this evening. It passed the north-easterly coast of Jamaica and is proceeding north-westerly. South-east winds with rain may be expected to continue during the night."

As a matter of fact the centre of the depression was north of Morant Point about 4 p.m.; Port Antonio, 5 p.m.; Kingston, 6 p.m.; and Kempshot, 11 p.m.; so that it was travelling at the rate of 19 miles an hour.

Again as the fall below mean was the same at both the Morant Point and Negril Point Light houses, the track of the centre must have been parallel to a line joining these places; but the fall at these places was only 0.14; at Port Antonio and Oracabessa aneroids fell 0.25 and 0.33 respectively, while at Kempshot the fall was only 0.16: hence if we can trust the aneroids, the centre could have been only a few miles north as it passed Jamaica. Nothing further has as yet been heard of it, beyond that it gave Grand Cayman a rainy day on the 31st. The wind in Jamaica was never more than about 30 miles an hour; and the strongest gust at Kempshot was 9 lbs. per square foot, or 48 miles an hour.

Heavy rains fell in the middle of the Island and along the Southern shores at those places exposed to the continued southerly winds.

Little or no damage was done.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

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No. 460. JAN 15 1917



R E P O R T

ON

THE HURRICANE IN JAMAICA.

AUGUST 15TH AND 16TH, 1916.

BY

MAXWELL HALL, M.A., F.R.A.S., F.R.Met. S.,
BARRISTER-AT-LAW.

JAMAICA
GOVERNMENT PRINTING OFFICE, KINGSTON.

1916.

R E P O R T

ON THE

HURRICANE OF AUGUST 15TH AND 16TH 1916.

The following warnings were received at Kingston by cable and "wire-less" and were telegraphed throughout Jamaica:—

Aug. 14th 8 a.m.—"Yesterday the U.S. Weather Bureau reported tropical disturbance of moderate intensity apparently central between Barbados and Dominica; will probably move north of west."

Aug. 14th 12.10 p.m. "Following received at noon to-day from Wireless station: Advisory warning Sunday (13th) 8.30 p.m. Tropical disturbance near St. Kitts. Direction of movement and intensity as yet uncertain, but does not appear to be increasing."

Aug. 14th 1.27 p.m. "At 12.30 p.m. U. S. Weather Bureau reports the tropical disturbance to be now apparently in central Caribbean."

Aug. 15th 8.10 a.m. "Last night the U. S. Weather Bureau reported disturbance apparently moving westward and south of San Domingo. Intensity not yet known."

Aug. 15th 12.35 p.m. "At about noon the following was received from the U. S. Weather Bureau: Tropical disturbance this morning a few hundred miles southeast of Jamaica apparently moving west."

This was re-assuring; but from 1 p.m. onwards the bar. fell rapidly at Kingston; and clearly some action had to be taken. At 2 p.m. the following was received at Kingston from the Wireless station:—"Advisory warning 7 a.m. Tropical disturbance is central this morning south-east of Jamaica, and apparently moving westward. At its present rate of movement it will doubtless reach the Yucatan Channel, or western Cuba in case it recurves, on Thursday afternoon. Storm is one of moderate intensity." And at 2.29 p.m. Mr. Brennan issued the following circular from Kingston:—

"Tropical disturbance now apparently near south-east Jamaica. Every precaution should be observed."

But the storm had then commenced at the east end of Jamaica, and the wires were down; and for some reason or other the wires were also down in the middle of the Island so that neither the 2 p.m. nor the 2.29 p.m. circular reached the west end. Indeed the last news Montego Bay had was the reassuring circular issued at 12.35 p.m. at Kingston, and which was received at Montego Bay 2.30 p.m. Hearing that communication was partly blocked or interrupted between Kingston and the west-end, at 6 p.m. the following circular was issued from Kempshot:—

"Barometer still falling. Every precaution must be taken to-night."

The storm reached Kingston that afternoon, and the west end that night; and there is reason to suppose that the Island had taken due warning in consequence of the number rather than the quality of the warnings issued!

Indeed the warnings from Washington seemed to place the centre too far away to the south-east, when of course the westward motion would have carried it almost clear of Jamaica; and it was not till 7.30 p.m. on the 15th that the following cablegram was received:—

"Tropical disturbance of greater intensity than first reports indicate east-south-east of and close to Jamaica. Future course uncertain."

At this time the centre had passed along the southern shores of the eastern half of the Island and was then central in Vere; it proved to be a cyclone of average intensity, the fall at the centre being 0.86 or 0.87 of an inch below the mean, and the wind reaching hurricane force in gusts 5 to 15 miles outside the central "calm" area, which happened to be unusually large, namely 36 miles in diameter.

This destructive wind was uniformly felt over the Island; it did not last long at any place as the centre passed at first with a very high velocity and then with an uniform velocity of 18 miles an hour. Consequently while all the banana trees were blown down, almost all the cocoanut palms escaped; but all coffee and cocoa plantations were damaged, and of course the yam crop in the provision grounds was seriously injured. A few small houses were blown down in St. Elizabeth and Manchester, and several vessels were driven ashore from their anchorage all round the Island.

In the Blue Mountains 16 or 17 inches of rain fell on the 15th which must have brought the rivers down in flood, but generally speaking there was not much rain attending this cyclone.

Unfortunately there was some loss of life, at sea and ashore, due to very different circumstances.

Chart No. 1 gives the general course of the centre of the cyclone: it approached Jamaica from the eastern Caribbean Sea at the rate of 20 miles an hour and it continued its course at the rate of 18 miles an hour: it passed over the Cayman Islands, and from thence it moved in a straight line to the town of Corpus Christi in Texas, reaching there at midnight on the 19th.

Chart No. 2 gives the position of the centre at different hours in its track along the southern shores of Jamaica; in its construction there were the two following facts to aid us:—

(1) The track passed over New Yarmouth in the district of Vere; the wind there changed from NNW to SE. as the central area passed, while still further south at Monymusk the wind changed from NW to S,

(2) The track passed over the Negril Point Light-house; the wind there changed from NNW to SE as the central area passed; and the standard barometer there showed that it took two hours for the central area to pass; and as it was moving at the rate of 18 miles an hour, the diameter of the central "calm" area was about 36 miles.

With this diameter and this track we see that Bowden near Port Morant was outside the central area, and had no lull; that Kingston was just at the edge, and had a lull for 30 minutes or so; that Great Valley in Hanover, a few miles south of Sandy Bay, was also just at the edge, and had a short lull; but that Savoy, Woodlawn, and Fullerswood were within the area. For particulars respecting these and other places reference must be made to the Observations at the end of this Report.

(3) But there was no absolute calm in the central area, although it was calm compared with the hurricane about 10 miles outside it. The following were the lowest readings of the bar. at different places within the central area:—

				in.
Kingston ..	..	..	..	29.02
New Yarmouth, Vere	..	..	..	.04
Savoy, Chapelton ..	..	..	..	.07
Woodlawn, Mandeville	..	..	..	.08
Fullerswood, Black River	..	..	..	.05
Negril Point ..	..	..	..	29.07
Mean ..	..	..	..	29.055

The average bar. at this time of the year is 29.92, so that the fall below mean in the central area was 0.86 or 0.87; and this fall, together with the usual gradients and wind velocities, indicates that the cyclone was one of average intensity, as already stated.

Chart No. 2 shows that the centre moved along its track below Morant Point and Kingston very quickly indeed, passing over 34 miles in the hour; and the Morant Point observations are confirmed by those at Bowden so that there can be no mistake. But after striking land at Old Harbour Bay at 7 p.m. the centre moved uniformly onwards at 18 miles an hour. Consequently any formula based on regularity cannot be used before 7 p.m., and even then is only applicable to a place in front of the storm, Negril Point for instance.

(4) Knowing the velocity of the centre from 7 p.m. onwards, namely 18 miles an hour, and the fall at the centre, it was easy to draw Fig. 3 for the Negril Point Lighthouse. The process was fully explained in the U. S. Monthly Weather Review for April 1906, where it was shown that the curve giving the fall of pressure below mean at any place on the central track of a cyclone is given by the equation

$$\text{Fall of pressure} = \frac{c}{\sqrt{r-a}}$$

where r is the distance from the edge of the central area, and where a and c are constants, until the centre comes within a certain distance, and then the fall follows the tangent to the curve at that point as far as the central area. In this particular case, $a=25$ miles, and $c=2$ in.; and the tangent takes off at a distance of 40 miles from the edge of the central area.

Within 40 miles of the edge of the central area, the fall therefore is in simple proportion to the distance from the edge; and this enables us to draw the isobars in Chart No. 2, which are confirmed by the process explained in the Jamaica Weather Report No. 446, and by using the different bar. readings at Kempshot and Negril.

That chart, which was drawn more particularly for 7 p.m. also shows the direction of the winds at different places at that hour, the strength of the wind being indicated by the number of feathers on the wind-arrow according to the Beaufort scale. A similar chart may be drawn for each hour between 5 p.m. and midnight; and the winds when corrected for the effect of the local easterly wind will all be found in accordance with the cyclonic theory, blowing anti-clock-wise round the centre with a considerable indraught, excepting the winds at Kempshot between 8 and 9.30 p.m. to which further reference will be made.

(5) It has been frequently pointed out in these reports and elsewhere that as a consequence of the equation in the last paragraph, when a cyclone moves in a straight line towards a place, the Time of arrival of the central calm is the fall below mean divided by twice the rate of fall, added of course to the time of observation; so that from a series of current bar. readings, the constancy, or want of constancy, in the computed Time of arrival informs the observer whether the cyclone is approaching him directly or not.

Applying this principle to the Negril Point readings, we have:—

Hour.	Bar.	Fall below mean.	Twice rate of fall.	Time of arrival.
	in.	in.	in.	hr.
6 p.m.	29.64	0.28		
7 p.m. ..	.57	.35	0.11	10.2
8 p.m. ..	.53	.39	0.19	10.1
9 p.m. ..	.38	.54	0.29	10.8
10 p.m. ..	29.24	0.68		

and the indications were that the centre was moving towards the Lighthouse, and that the edge of the central area would reach there between 10 and 11 p.m.

At New Yarmouth and at Fullerswood the aneroids do not give such good results: for although they fell correctly to the lowest readings, yet they differ considerably in their rate of fall, rendering accuracy impossible.

We have now to refer to the remarkable irregularity of the wind at Kempshot between 8 and 9.30 p.m. on the 15th. Considering the direction of the wind alone there could be no doubt that the centre approached from the ESE, and that it passed a little north of Kempshot as the wind backed from NE to NW, W, SW, and even S.* Consequently when the wind suddenly sprang up from the E it was evident that there was confusion produced by two centres; and as Kempshot was only 10 miles outside the central area at 9.30 p.m. it is difficult to understand how a small "secondary" could exist so close to the "primary." If we draw a line through Kempshot parallel to the track of the centre we shall have to go as far east as Linstead before reaching any place likely to report the direction of the wind; and a good account of the storm at Linstead was given in *The Gleaner* of Aug. 18th; the wind was from the N all day, increasing in strength until 8.15 p.m. when there was a lull; and at 9 p.m. the wind sprang up from the SE. This is all in order (except perhaps the time which seems an hour in advance); and while there was no whirl as the storm passed Linstead, there was a lull at 7.15 p.m. when there should have been a wind of 50 miles an hour, and this may have been due to the secondary. In Kingston there were irregularities in the wind which lulled between 10 a.m. and 6 p.m. while the lower clouds remained steady to the primary.† It is impossible to trace the secondary more clearly, but it apparently existed before reaching Kempshot where it was so strongly marked.

Now a remarkable oscillation of the mercury in the barometer occurred while that secondary was passing Kempshot; of course the mercury always oscillates to a small extent as the centre approaches and the wind becomes violent, so that some care has to be taken in reading; but on this occasion the wind was about 40 miles an hour with gusts rising to 60, while the oscillations were so large that both the max. and min. had to be carefully taken. There was an interval of about 5 seconds when the oscillations were small, and of about 8 seconds when they were large. The following were the actual unreduced readings:—

Hour.	Max.	Min.	Mean.	Diff.
8.45 p.m.	28.680	28.662	28.671	0.018
8.50 "	.680	.622	.651	0.058
9 "	.702	.626	.664	0.076
9.10 "	.672	.644	.658	0.028
9.30 "	.652	.620	.636	0.032
10 "	28.630	28.620	28.625	0.010

The oscillations ceased under the influence of the primary; at midnight Kempshot was about 19 miles outside the central area; the wind was then about 60 miles an hour rising in gusts to 90, as was recorded by the pressure-plate anemometer; but there was very little oscillation.

The following is the series for Time of arrival at Kempshot:—

Hour.	Bar.	Fall below Mean.	Twice rate of fall.	Time of arrival.
	in.	m.	m.	hr.
5 p.m.	29.68	0.24		
6 "	29.63	0.29	0.20	7.4
7 "	29.48	0.44	0.31	8.4
8 "	29.32	0.60	0.23	10.6
9 "	29.25	0.67		

Consequently, as was shown by this series at the time, the centre was not approaching Kempshot; and although the secondary may have caused the mercury to oscillate, it hardly affected the atmospheric pressure.

In the Quarterly Journal of the R. Meteorological Society for July this year an article will be found in which I showed how necessary it was to eliminate the usual easterly wind in Jamaica from the cyclonic wind, especially when the cyclone approaches from a distance; and that when this is done certain important results are obtained. The first refers to the angle between the wind-arrow and the centre; but I was not able to complete the reductions in the second half of the article dealing with small distances for want of a cyclone with accurately known positions to the S or SSW of Jamaica, as most of such cyclones have passed rather far away. But this cyclone enables me to complete that article by drawing up a large table similar to Table III (in that article) for distances less than 100 miles from the edge of the central area, and by combining the present and former General Results.

The observations were grouped according to the quadrant in which the centre happened to be; and the centre may be considered

- (1) in the ESE quadrant and approaching Jamaica;
- (2) in the NNE quadrant and passing by to the N;
- (3) in the WNW quadrant and receding from Jamaica;
- (4) in the SSW quadrant and passed by to the S.

* There was no doubt about the direction and strength of this whirl; a heavy tree was blown down from the west; and an out-house for storing pimento was pushed out of place from the west again. A NW wind was felt at Retirement, a few miles north-west of Kempshot.

† From 10 a.m. to noon the irregularity was due to the usual SE sea-breeze; but from 5 to 6 p.m. there was an irregularity due to westerly wind just before the lowest bar. as there was at Kempshot.

We can now draw up the following table of General Results:—

Quadrant.	Angle between the Wind-arrow and the Centre.	
	Dist. large.	Dist. small.
	°	°
1. ESE ..	44	62
2. NNE ..	72	77
3. WNW ..	44	68
4. SSW ..	36	47
Means	49	64

The first thing we notice is that the angle is larger when the distance is small; that is to say, the motion becomes more circular as we approach the centre.

The next thing we notice is that while the angles in (1) and (3) are equal, or nearly so, the angle is a max. in (2) and a min. in (4).

The rule here seems to be that when the centre is approaching in (1), or receding in (3), the angle is about the same, namely 44° for large distances and 65° for small. But when the centre is passing in (2), the wind-arrow lags *behind* the moving centre; and when the centre is passing in (4), the wind-arrow lags *in front* of the moving centre; so that the angle is too large in (2), and too small in (4), the difference being about 33°.

Now when we turn to the velocity of the cyclonic wind, the local wind having been eliminated, we get:—

Fall below mean.	Miles per hour.	
in.		
0.10	10
0.22	20
0.45	41
0.56	52
0.70	55

And when the Fall below mean is not greater than 0.56 we have simply,

Velocity of wind = 93 (Fall below mean),

as was shown in the article referred to above; but we can now add another term and say, when the Fall below mean is between 0.56 and 1.00.

Velocity of wind = 93 Fall – 50 (Fall – 0.56);

so that when the Fall is 1.00, the velocity would be 70 miles per hour.

The Jamaica observations do not allow us to go beyond this limit.

These general results were obtained from a large number of observations of 13 of the most suitable cyclones for this purpose between 1876 and the present year, made at several places in Jamaica with standard barometers; and having reduced the Wind over Jamaica to order and regularity, it remains to consider Cloud-drift in a future article.

MAXWELL HALL,
Govt. Meteorologist.

Sept. 11th, 1916.

OBSERVATIONS.

In the following tables the mercurial barometers at Morant Point, Kingston, Kempshot, Montego Bay, and Negril Point have been reduced to all the standards of temperature, level, gravity and Kew; the aneroid barometers were reduced by comparing their readings with standards at other places when the storm was yet distant. And all readings have been further corrected for diurnal variation.

The following is the Beaufort Wind scale (W.R. No. 411, p. 12):—

Scale No.	Description.	Miles per hour.	Scale No.	Description.	Miles per hour.
0 ..	Calm	0	7	Moderate gale	35
1 ..	Light air	2	8	Fresh “	42
2 ..	Light breeze	5	9	Strong “	50
3 ..	Gentle “	10	10	Whole “	59
4 ..	Moderate “	15	11	Storm	68
5 ..	Fresh “	21	12	Hurricane, above 75, say	80
6	Strong “	27	14	Great hurricane “	100

This scale seems to imply that the winds blow steadily, and the mileage therefore is what would be shown by a Robinson anemometer during a considerable interval, say 15 or 30 minutes; but our great winds blow in heavy gusts; and there is reason to suppose that the gusts are about one and a half times

the registered wind; that is to say if the wind blows at 60 miles an hour on an average during a considerable interval, the gusts during that interval will be 90 miles an hour; but they last for only a few seconds.

Morant Point Light House:—Mr. Chas. Durrant.

Day.	Hour.	Bar. (Stand.)	Wind.	Clouds: notes.
	hr.			
14th	7 a.m.	29.901	N 25	1 str. N: 9 str. cum. E
"	11 "	.886	" 25	
"	3 p.m.	.870	" 20	1 str. N: 6 str. cum. E
15th	7 a.m.	.713	NNE 30	9 str. N. Heavy rain squalls.
"	9 "	.691	" "	Nimb.
"	10 "	.675	" "	8 Nimb. N.
"	11 "	.664	" 35	10 str. cum. N.
"	Noon	.640	" "	
"	12.30p.m.	.616	" "	
"	1 "	.583	NE 60	
"	2 "	.498	" "	Telephone line carried away.
"	3 "	.375	NNE 70	10 Nimb.
"	4.30 "	.276		
"	5 "	.176	NE 70	Lowest bar.
"	5.15 "		ESE	Bar. began to rise.
"	5.30 "		SE 80	Highest wind: anemometer blown down.
"	10.30 "	.699	SE	
16th	7 a.m.	29.898		

The sea did not come as far inland as in Aug., 1915.

(Between 7 a.m. 14th and 7 a.m. 15th 598 miles of wind passed, at therefore an average rate of 25 miles per hour. Between 7 a.m. and 5.30 p.m. on the 15th 421 miles were registered; but the pole carrying the instrument was bending, and probably 475 miles passed. These figures will be found to agree with the reduced hourly estimates given above. M.H.)

Bowden:—Wireless station.

Aug. 15th. Bar. aneroid 7 a.m. 29.69
 (lowest) 5 p.m. 29.07
 Wind. 2 p.m. NE 50
 4 p.m. NE? 60
 5 p.m. 70
 5.30 p.m. E? 75
 5.50 p.m. SE? 80
 6 p.m. SE moderated.

Port Antonio:—Mr. W. L. Mudon.

Day.	Hour.	Bar. (Aneroid)	Notes.
	hr.	in.	
15	7 a.m.	29.69	NW: scud from N. Temp. 83°
"	1 p.m.	.63	N: rain.
"	2 "	.62	N: rain.
"	3 "	.54	N: rain.
"	4 "	.46	NE; storm: rain. Temp. 82°
"	4.30 p.m.	.40	NE do. do
"	5 p.m.	.31	E; great storm: heavy gusts: rain.
"	5.30 p.m.	.18	E: hurricane: rain.
"	5.42 p.m.	.10	E: hurricane: lowest bar. rain.
"	6 p.m.	.18	SE: great storm: rain.
"	6.30 p.m.	.22	" " "
"	7 p.m.	.28	" " "
"	8 "	.34	" " "
"	11 "	29.52	S: storm: rain.

Rainfall 7 a.m. 15th to 7 a.m. 16th was 3.10 inches.

Kingston:—Mr. J. F. Brennan.

Day.	Hour.	Bar (Stand.)	Wind miles per hour.	Clouds and notes.
13	7 a.m.	29.978		Clear
"	3 p.m.	.955		
14	7 a.m.	.864	W. 2	Ci & Ci S. S.E.
"	11 a.m.	.853	S.E. 6	Ci S. SE
"	3 p.m.	.828	S. 6	Ci S SE
"	7 p.m.	.795	N.E. 3	Ci & Ci S SE
"	9 p.m.	.796	S.E. 3	
"	10 p.m.	.796	W. 4	
15	12.30 a.m.	.805	S.E. 4	
"	3 a.m.	.752	N. 12	St. Cum N.E.
"	4 a.m.	.751	N.E. 10	
"	5 a.m.	.736	N.E. 10	
"	6 a.m.	.720	N. 14	St. N: Cu: ENE: Light rain St. NE Cu: NE
"	7 a.m.	.709	N. 14	
"	8 a.m.	.687	N.W. 16	
"	9 a.m.	.673	N. 12	St. NE
"	10 a.m.	.680	E. 8	St. NE
"	11 a.m.	.674	S.E. 7	
"	12 noon	.667	SE. 6	St. & Cu Nim. NE
"	1 p.m.	.628	S.W. 5	S.W wind lasted only 15min.
"	2 p.m.	.572	N.W. 7	
"	3 p.m.	.480	N. 30	Nim N: rain.
"	4 p.m.	.386	N. 12	Cu. Nim NE
"	5 p.m.	.234	N.N.W. 28	Cu. Nim NE
"	5.30 p.m.	.138	N.N.W. 26	
"	6 p.m.	.084	N.W. 6	St. & Nim: ENE: lull in wind. Lowest bar. 6 to 6.30 p.m.
"	6.30 p.m.	.024	S.E. 65	Gale N.E., changing to S.E. in 10 minutes; rain; 72 miles at 6.40 p.m.
"	7 p.m.	.145	S.E. 60	Lightning to W.
"	7.30 p.m.	.228	S.E. 48	Lightning to W.: rain.
"	8 p.m.	.337	S.E. 55	
"	8.30 p.m.	.427	S.E. 40	
"	9 p.m.	.515	S.E. 40	St. SE
"	9.30 p.m.	.519	S.E. 36	
"	10 p.m.	.546	S.E. 40	Wind 48 miles S.E. at 10.30 p.m.
"	11.30 p.m.	.614	S.E. 30	
"	12 mt.	.649	S.E. 36	
16	2.30 a.m.	.731	S.E. 36	
"	4 a.m.	.767	S.E. 36	
"	6 a.m.	.829	S.E. 34	
"	7 a.m.	29.843	S.E. 30	St. & St. Cu. SE: Cu. S. Ci. NW.

Mt. Holstein, Portland:—Mr. A. Benn.

Day.	Hour.	Bar. (Aneroid)	Notes.
14	7 a.m.	29.86	
15	7 a.m.	.68	NE, strong.
"	12 noon	.66	
"	1 p.m.	.65	
"	2.30 p.m.	.56	
"	3 p.m.	.50	
"	3.30 p.m.	.48	
"	4.30 p.m.	.30	
"	5 p.m.	.26	Lowest barometer
"	6 p.m.	.30	Wind lulled.
"	8.30 p.m.	.46	SE, strong.
"	9 p.m.	.55	S.E.
"	12 midnt.	.67	
16	2.30 a.m.	.76	
"	7 a.m.	29.78	At 9 a.m. Wind fresh from S.E.

Between 7 a.m. on the 15th & 7 a.m. on the 16th 7.59 inches of rain fell.

New Yarmouth, Clarendon:—Mr. C. Watson.

Day.	Hour.	Bar. (aneroid)	Notes.
		in.	
14	7 a.m.	29.88	
"	3 p.m.	.86	
15	7 a.m.	.72	
"	8 a.m.	.72	
"	10 a.m.	.68	N: drizzling.
"	11 a.m.	.71	
"	12 noon	.70	N to NW; gentle.
"	1 p.m.	.67	" "
"	2 p.m.	.65	
"	3 p.m.	.57	
"	4 p.m.	.50	High wind.
"	5 p.m.	.42	
"	6 p.m.	.26	NNW
"	6.30 p.m.	.15	
"	7 p.m.	.08	Less wind. Lowest bar. 7 to 8.30 p.m.
"	7.15 p.m.	.06	Raining.
"	7.30 p.m.	.04	Calm: rain ceased.
"	7.45 p.m.	.07	Calm.
"	8 p.m.	.08	E, gentle.
"	8.30 p.m.	.10	SE., increasing.
"	9 p.m.	.20	S, strongest blow at 9.10 p.m.
"	10 p.m.	.41	S, decreasing.
"	11 p.m.	.52	
16	12 midnt.	.58	
"	7 a.m.	29.83	
			Total rainfall 3.57 inches.

Savoy, near Chapelton:—Mr. Robert Craig.

Day.	Hour.	Bar. — (Aneroid.)	Wind: Notes.
		in.	
15	5 p.m.	29.45	N by E., all day.
"	5.30 p.m.	.37	
"	6 p.m.	.29	
"	6.30 p.m.	.24	
"	7 p.m.	.12	
"	7.15 p.m.	.07	Lowest bar. 7.15 to 8.30 p.m.
"	7.30 p.m.	..	E.
"	8 p.m.	.08	Lull.
"	8.30 p.m.	.09	E. to SE, increasing.
"	9 p.m.	..	E by N, hurricane
"	9.30 p.m.	.19	" "
"	10 p.m.	.29	Heavy rain squalls.
"	12 midnt.	.42	Southerly.
16	1.20 a.m.	.44	S. full hurricane.
"	7.15 p.m.	29.65	S by E, gale with showers.

Woodlawn, Mandeville:—Prof. W. H. Pickering.

Day.	Hour.	Bar. — (Aneroid)	Wind: Notes.
15	7 a.m.	in. 29.76	
"	8 a.m.	.75	
"	9 a.m.	.74	
"	10 a.m.	.73	
"	11 a.m.	.72	
"	12 noon	.70	
"	1 p.m.	.68	
"	2 p.m.	.66	
"	3 p.m.	.63	
"	4 p.m.	.58	
"	5 p.m.	.51	
"	6 p.m.	.42	N, 25.
"	7 p.m.	.27	N, 40.
"	7.30 p.m.	.16	
"	8.0 p.m.	.08	Calm. Lowest bar. 8 to 9.30 p.m.
"	8.15 p.m.	.14	N. 15.
"	8.30 p.m.	.14	N, 10.
"	8.45 p.m.	.14	N, 5.
"	9.0 p.m.	.13	N, 5.
"	9.15 p.m.	.12	E, 15.
"	9.30 p.m.	.11	SE, 15.
"	9.45 p.m.	.20	S, 55.
"	10 p.m.	.25	S, 60.
"	10.30 p.m.	.33	S, 60.
"	11 p.m.	.38	S, 40.
"	12 midnt	.48	S, 40.
16	1 a.m.	.55	SE, 60*
"	7 a.m.	29.76	SE., 5.

Total rainfall for the 15th, 6.30 inches.

* From information received.

Fullerswood, near Black River:—Mr. S. Nash.

Day.	Hour.	Bar. (Aneroid.)	Wind: Notes.
15	5 p.m.	29.69	
"	5.30 "	.66	
"	6 "	.62	
"	6.30 "	.54	N. strong.
"	7 "	.46	
"	7.30 "	.36	
"	8 "	.27	
"	8.30 "	.23	N. 40.
"	9 "	.18	Lull
"	9.40 "	.05	Do. Lowest bar
"	10 "	.15	SE 80 to 90
"	10.30 "	.30	S
"	11 "	.39	
16	12.30 a.m.	.59	
"	3.30 "	.80	
"	6.30 "	29.90	

Kempshot, St. James:—Mr. Maxwell Hall.

Day.	Hour.	Bar. (Stand.)	Wind.	Clouds.	Notes.
		in.			
14	7 a.m.	29.921	E 5	5 cir S.E.	Fine.
"	3 p.m.	.897	ENE 3	10 cir. str. SE	Great haze over the land.
15	7 a.m.	.803	Var. 4	5 alt. cum. NE.	Cir. stripe lying ENE and WSW wheeling from N.
"	11 "	.762	NNE 10	5 cir. veil	Disturbed
"	12 noon	.750	N 15	10 str. cum NE	Some alt. cum. E.
"	2 p.m.	.709	NNE 15	10 fr. cum. NNE	Threatening.
"	3 "	.721	NE 20	" " NE	Improving.
"	4 "	.683	" "	" " NE	Threatening.
"	5 "	.683	" "	10 str. NE	"
"	6 "	.632	" "	" "	Rain squalls
"	7 "	.484	NNE 40	10 nimb.	Wind in gusts: light rain.
"	8 "	.319	NW "	" "	" "
"	8.30 "	.306	W "	" "	" "
"	9 "	.248	SW "	" "	" "
"	9.30 "	.213	S "	" "	" "
"	10 "	.194	E 20	10 Str. E	Wind not so strong. Lowest bar.
"	10.30 "	.287	E 50	10 nimb.	Heavy rain squalls.
"	11 "	.310	E 50	" "	" "
"	12 midnt.	.350	SE 60	" "	Very heavy "
16	1 a.m.	.380	" "	" "	" "
"	2 "	.516	" 50	" "	Heavy "
"	3 "	.571	" "	" "	" "
"	4 "	.630	S "	" "	" "
"	5 "	.670	SE "	" "	Moderating "
"	7 "	29.787	SSE. 25	10 str. cum. SE.	Rain squalls.

Between 7 a.m. 15th and 7 a.m. 16th 1.78 inches of rain fell.

The Temp. throughout the night was about 73°.

The pressure-plate registered a max. of 30lbs. per sq. foot.

The Robinson anemometer was blown away.

On the 16th 5 p.m. there was 5 cir-str. to the W. with faint diverging stripes: weather fine.

Brandon Hill Cottage, Montego Bay:—Mrs. Maxwell Hall.

Day.	Hour.	Bar. (Stand.)	Wind. Notes.
		in.	
15	1 p.m.	29.76	E
"	3 "	.78	E
"	5 "	.72	N
"	7 "	.53	" increasing. Rain.
"	8 "	.42	" strong gusts
"	8.30 "	.37	" "
"	9 "	.34	" "
"	9.30 "	.26	NE, trees blown down.
"	10 "	.23	NE, strong. Rain. Lowest bar.
"	10.30 "	.28	NE, " "
"	11 "	.33	ENE " "
"	11.30 "	.35	Lull for a few minutes.
"	12 midnt.	.35	ENE, strong gusts, rain.
16	12.30 a.m.	.35	E
"	1 "	.41	" heavy squalls
"	7 "	.76	SE, gusty.
"	8 "	29.80	" heavy squalls.

The temp. was about 78° throughout the night

Great Valley, Hanover:—Mr. E. E. Melville.

Aug. 15th 2 p.m. N, strong; rain; wind in gusts.
 7 " N, hurricane, increasing in force till
 10 " N. " From 10 to 11 gusts moderated.
 12 " S. or SSW, hurricane again till
 16th 2 a.m. S or SSW, wind strongest.
 6 a.m. Weather moderated.
 Rainfall 4.20 inches.

(The house is in a circular valley, and not at the centre. The great value of these notes is due to the fact that they show that the edge of the central area touched Great Valley. M.H.)

Negril Point Light House:—Mr. J. S. Brownhill.

Date and hour 1916.		Bar. corrected for all standards and also for D.V	Wind. dir. from and force.	Clouds in tenths of sky	Remarks
Aug. 15	7 am.	29.774	N. 15	10 Str. SE	
"	9 "	.762	NNW 20	"	
"	10 "	.752	N 20	"	
"	11 "	.754	N 20	" N	
"	2 p.m.	.724	N 30	" N	
"	3 "	.749	N 20	10 Nim. N.	Rain squalls from 2.10 p.m.
"	4 "	.729	N 20	"	"
"	5 "	.689	N 20	"	"
"	6 "	.641	N 20	"	"
"	7 "	.574	N 30	"	"
"	8 "	.529	N 40	"	"
"	9 "	.378	N 60	"	"
"	10 "	.243	NNW 60	"	"
"	11 "	.094	E 60	"	Lowest bar. 11 to 1 a.m. average wind at 11 was 48.
	12 Mt	.073	SE 20	10 Str.	Lull from 11.30 to 12.20
Aug. 16	1 a.m.	.085	SE 96	10 Nim.	Rain squalls.
"	2 "	.328	ESE 96	"	"
"	3 "	.477	ESE 84	"	"
"	4 "	.579	S 72	"	"
"	5 "	.639	S 72	"	" 5.18 T in SE
"	6 "	.689	S 60	"	"
"	7 "	.729	S 60	"	"
"	9 "	.784	S 48	10 Cum. S	
"	10 "	.809	S 40	"	
"	11 "	.826	SE 30	"	
"	Noon	.848	SE 40	"	
"	1 p.m.	29.872	SE 40	"	

The wind at intervals from 1 a.m. to 3.25 a.m. Aug 16th reached the maximum velocity of 120 m.p.h. when timed by a watch but did not continue at this velocity for more than a couple of minutes at a time. These gusts do not show on the anemometer record sheet, as the marks merge into one another.

From 1 a.m. to 7 a.m. on the 16th the mileage for the six hours was 454; and the total for the 24 hours ending 7 a.m. Aug. 16th was 1,000 miles. The rainfall was 2.61.

Chart 1.
Track of centre of Cyclone, August 14th to 18th 1916.

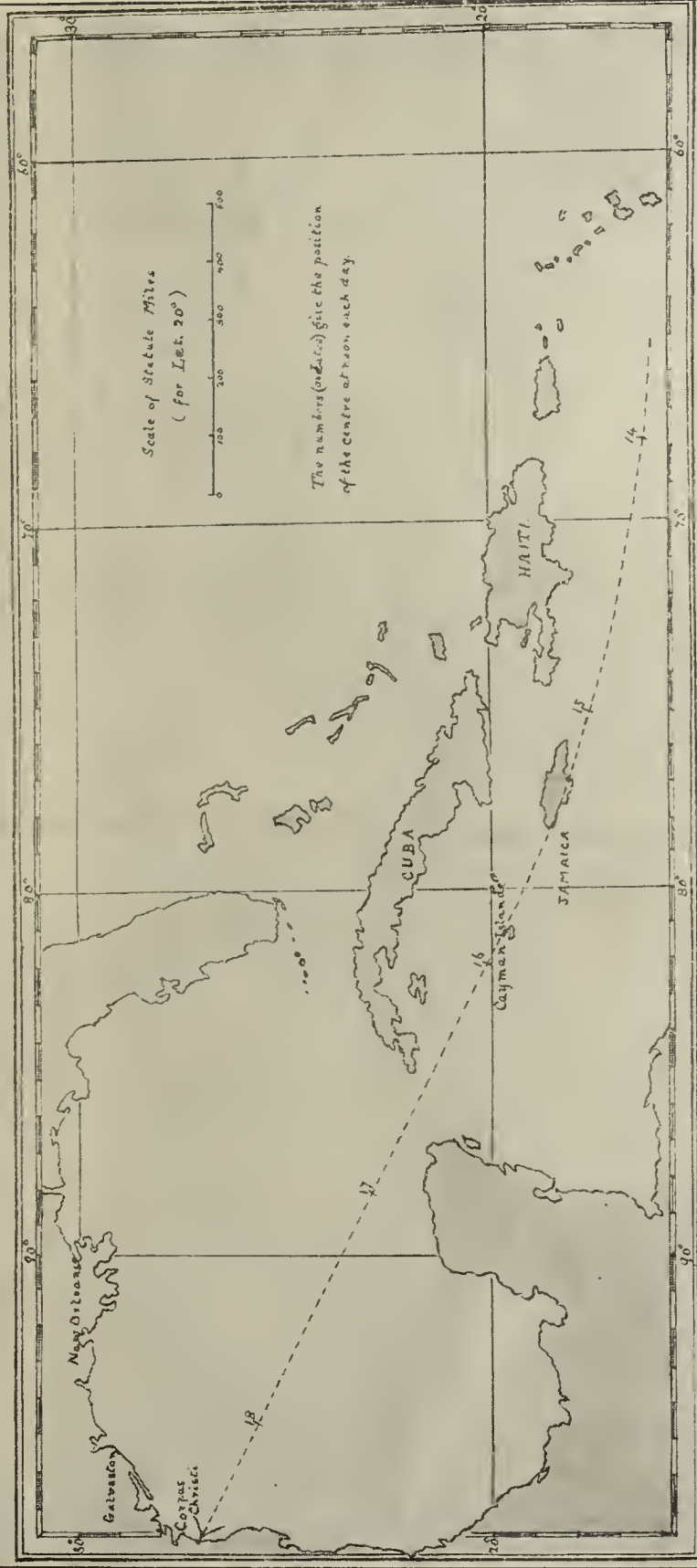
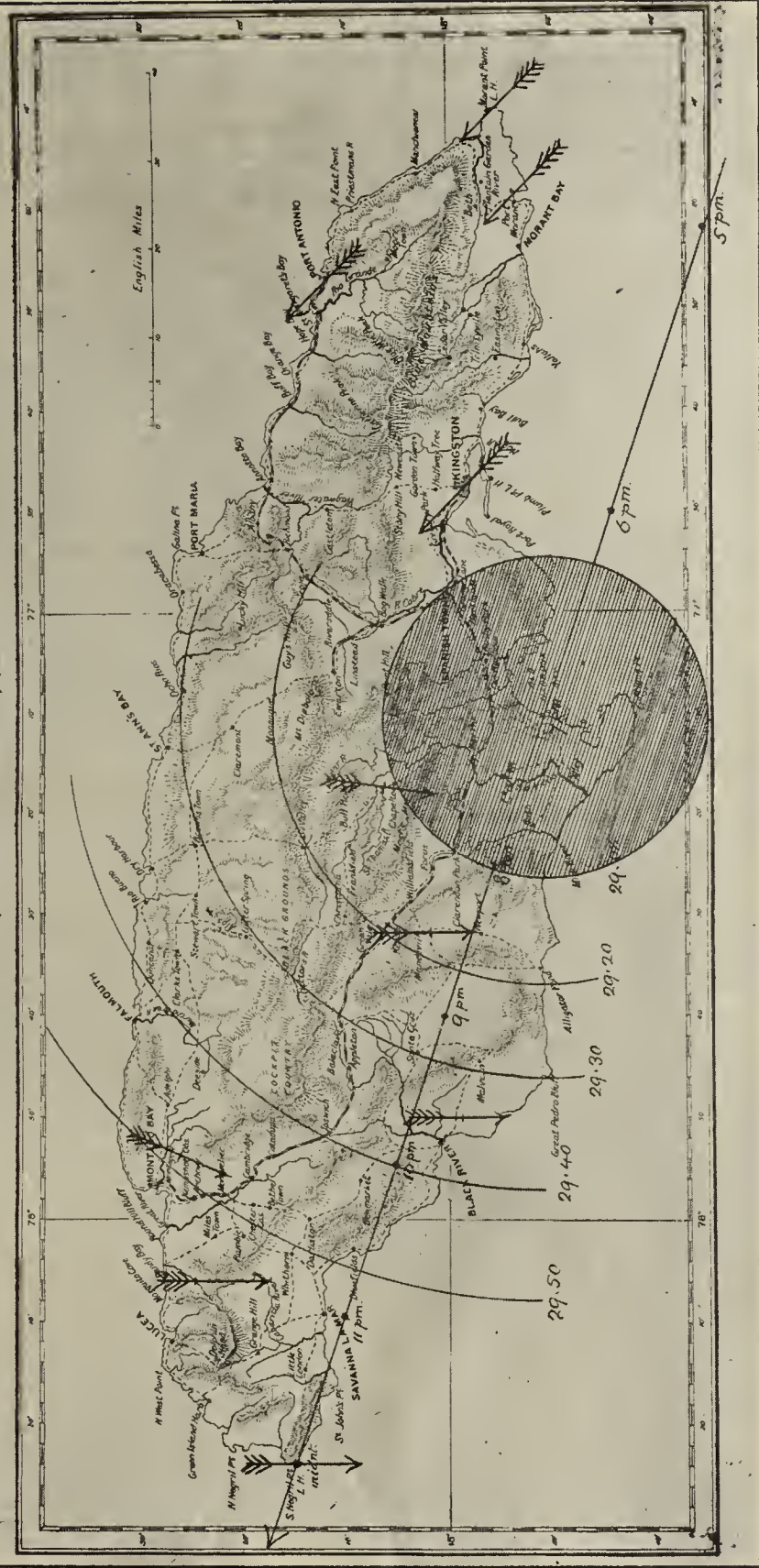


Chart 2.

1916 August 15th. 7pm.



NEGRIL POINT L.H.

Miles from central area

140 120 100 80 60 40 20 0

Central area

3pm.

5pm.

7pm.

9pm.

11pm.

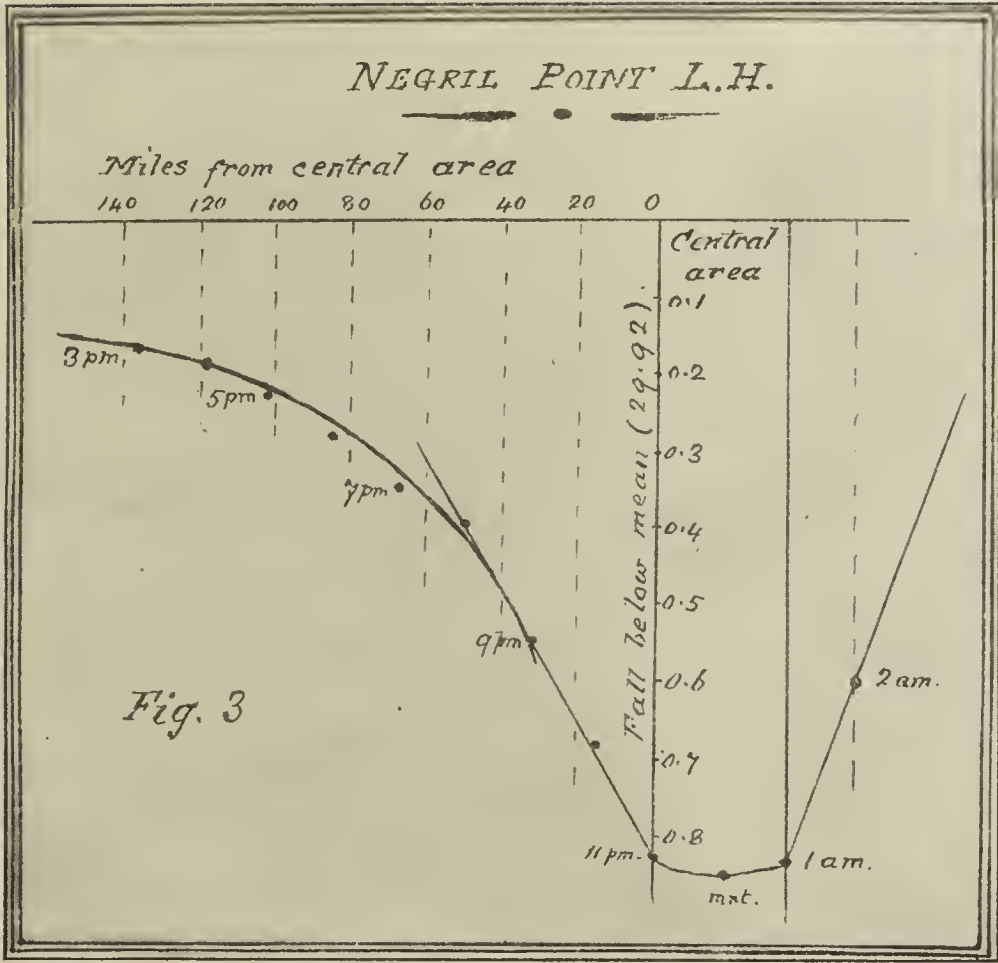
mat.

1am.

2am.

Fall below mean (29.92).

Fig. 3





51.05
JA



JAMAICA

WEATHER REPORT

FOR THE MONTH OF
SEPTEMBER, 1916.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
		in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.918	29.871	81.5	84.7	86.7	76.0	10.7	83.0	13*	69.0	21	19.0
Kingston ..	24	29.892	29.856	75.8	84.4	89.6	73.1	16.5	92.3	15	70.0	2	22.3
Negril Point Light House ..	33	29.893	29.863	77.9	85.0	87.7	73.1	14.6	89.8	16*	69.7	1	20.1
Castleton Gardens ..	496	..	..	70.4	82.2	88.8	69.1	19.7	95	14	66	1	29
Hope Gardens†	668	29.912	29.845	74.8	83.2	88.3	73.4	14.9	93	15	68	5*	25
Bavinton, Stony Hill**	1,355	..	..	71.5	78.0	82.2	68.6	13.6	86.0	15	66.5	1	19.5
Stony Hill Indus. School ..	1,400	..	..	72.7	77.7	82.3	68.2	14.1	86.0	15*	64	2*	22
Hill Gardens ..	4,900	25.269	25.242	64.0	65.4	68.7	56.4	12.3	71	1*	56	1	15

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		°		°					m.		m.	L	M.	U.	L.	M.	U.
Morant Pt. Light House††	8	74.0	78	73.3	69	3.44	..	NNE	8.5	ENE	7.5	1.9	1.4	1.1	1.0	2.4	0.8
Kingston	24	71.7	87	73.5	70	0.97	139	N	4.1	SE	8.2	0.7	0.5	2.9	3.4	2.0	2.5
Negril Point Light House†	33	73.3	85	75.7	75	5.96	165	ENE	6.8	Var.	10.4	0.3	0.4	5.1	2.2	5.7	5.1
Castleton Gardens	496	68.1	93	65.1	56	16.22	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	68.6	81	75.8	79	5.90	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,355	68.0	83	71.2	80	12.02	..	N	1.4	SSW	1.6	2.1	0.9	1.7	4.0	2.5	0.5
Stony Hill Indus. School	1,400	69.8	90	71.3	80	11.82	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	4,900	60.2	87	63.2	93	7.99	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
† Negril Point Light House. Wind 11 p.m. E.N.E. 6.1
** Bavinton, Stony Hill. Mean Min. temp on grass 65.6
Earth temp. 1 ft. below surface 78.7
" 4 ft. " " 78.0

†† Plumb Point Light House { Average No. of Miles of wind per diem }
{ Greatest }
{ Least } Anemometers blown away on Aug. 15th.

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	SEPT, 1916.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			In.
Manchioneal	10.83	3.30	4	14	10.88
Spring Valley, Portland	...	...	...	...	...
Bath	9.42	3.15	4	14	12.03
Priestman's River	4.19	1.63	4	12	...
Moore Town	11.80	3.00	7	12	14.21
Port Antonio	6.52	2.22	4	10	10.43
Fellowship	6.02	1.66	7	9	12.93
Johnson River Bridge	7.95	2.98	4	16	11.48
Shrewsbury	3.09	1.00	7	8	12.82
Cedar Valley, St. Thos.	7.45	1.90	17	10	13.40
Hope Bay	1.50	0.65	4	6	...
Moy Hall, St. Thos.	4.90	1.00	4	10	10.92
Brooklodge	8.00	2.20	17	15	...
Lennox	...	...	...	...	...
Farm Hill	8.91	2.5	11	9	10.00
Hill Gardens	7.99	1.88	17	18	9.84
Buff Bay	1.56	0.63	30	16	4.94
Vinery	1.49	0.45	13	6	...
Windsor Castle, Portl.	2.02	0.40	7	7	...
Greenvale, Portland	9.40	3.68	18	10	...
Mt. Holstein	7.67	1.90	11	19	9.02
Irish Town	6.97	1.00	10	9	9.40
Rose Hill	15.14	2.30	29	16	...
Hardware Gap	13.00	...	...	...	9.02
Stony Hill Ind. School	11.82	2.15	18	20	9.82
Castleton Gardens	16.22	2.60	30	16	11.21
Lawrence Tavern	10.33	1.92	8	14	9.53
Cedar Valley, Red Hills	8.99	2.72	30	12	...
Carew Castle	...	...	...	...	...
Agualta Vale	3.18	1.40	13	8	4.86
Water Valley	3.23	1.40	13	5	5.98
Albany, Ry. Station	2.61	0.89	29	4	...
Platfield	...	...	...	...	...
Richmond, St. Mary	4.28	1.40	8	7	5.59
Highgate	3.30	0.71	19	9	...
Hampstead, St. Mary	6.72	3.59	20	9	...
Troja	...	...	...	...	...
Guy's Hill	4.96	1.16	10	6	...
Lucky Hill	3.11	1.07	9	8	...
Rio Hoe	9.13	2.13	11	10	6.18
Unity Valley	12.79	4.40	11	17	8.20
Moneague	16.56	7.25	11	12	7.14
Claremont	8.75	2.80	8	8	5.31
Albion, St. Ann	13.26	2.55	8	12	6.98
Averham Park	6.90	2.03	8	9	4.83
Mean	8.55	...	...	...	...

SEPT., 1916.

NORTHERN DIVISION.

	Total fall.	Amount.	Greatest fall in 24 hours.		Average.
			Date	Days on which 0.01 or more fell.	
	In.	In.			
Port Maria	2.69	1.78	29	5	3.88
Ocho Rios	0.67	0.50	11	2	3.93
Bogue, Ocho Rios	2.12	2.12	29	1	...
Rockfield	3.79	2.05	8	10	...
Drax Hall	0.85	0.15	8	8	3.98
Liberty Hill	3.35	1.60	5	7	...
St. Ann's Bay	2.03	0.54	8	8	3.31
Seville	2.10	0.66	20	5	3.60
Richmond Estate	...	...	...	...	...
Llandoverly	2.60	1.10	4	9	3.72
Runaway Bay	2.17	0.75	29	6	...
Brown's Town	9.97	2.12	18	12	5.30
Alexandria	7.64	2.26	20	12	...
Chewmagna, St. Ann	12.55	3.00	14	14	7.41
Home Castle	6.35	1.50	...	15	4.56
Richmond Pen	10.25	2.30	5	8	5.88
Mahogany Hall	7.39	1.38	23	16	6.97
Barnstaple	8.10	1.30	5	11	...
Brampton Bryan	...	...	...	...	...
Bryan Castle	4.60	1.45	12	8	3.44
Braco	2.20	0.45	29	9	3.31
Arcadia	8.95	2.80	29	7	4.02
Lancaster	2.13	1.20	10	3	3.89
Harmony Hall	1.83	0.65	29	8	3.64
Vale Royal	5.60	1.50	12	11	4.64
Colchis Pen	5.45	1.15	27	12	5.23
Swanswick	7.18	2.15	12	10	...
Georgia	6.15	1.60	23	12	3.92
Long Pond	6.22	1.63	19	13	3.71
Duncans	2.19	0.50	8	7	...
Hyde Hall	7.67	1.08	11	10	...
Steelfield	7.73	1.32	23	12	4.25
Etingdon	...	...	...	...	...
Lottery	7.45	2.20	23	11	4.38
Falmouth	1.99	0.48	6	10	3.46
Florence Hall	...	...	...	...	...
Good Hope	...	...	...	...	...
Unity	11.20	1.90	5	13	...
Kent	5.31	1.00	7	12	...
Canaan	11.77	1.82	5	19	7.96
Content	8.50	2.12	11	17	...
Bellfield	6.35	1.50	7	10	...
Guildsbro	15.57	3.80	11	19	7.91
Glasgow	12.30	2.40	11	12	...
Moor Park	11.53	3.00	11	12	6.13
Rose Hall	6.25	1.40	11	10	...
Running Gut	6.00	1.08	12	11	...
Cinnamon Hill	7.35	1.77	11	13	...
Success	7.42	1.38	29	9	...
Montego Bay	5.66	1.35	5	15	6.91
Catherine Hall	6.58	1.57	23	15	8.23
Retirement†	9.01	1.50	19	17	...
King Gate	7.62	1.77	7	14	7.04
Round Hill	...	...	...	...	...
Blue Hole	9.66	2.00	20	15	...
Haughton Court	9.95	2.35	21	7	7.87
Lucea	10.26	1.53	21	11	7.68
Green Island	8.93	2.42	7	13	...
CENTRAL SUB-DIVISION.					
Rio Magno	10.06	3.50	8	9	...
Headworks, Rio Cobre	7.66	1.90	24	11	6.54
Linstead	4.74	1.50	17	12	8.01
Berkshire Hall	6.18	1.25	8	13	5.30
Point Hill	4.06	1.20	17	7	11.54
Marlie Hill	11.68	5.25	29	14	...
Worthy Park	4.01	1.25	17	8	7.56
Croft Hill	8.12	1.85	16	12	...
Chapelton	6.65	1.80	11	15	7.91
Danks Works	5.42	1.56	9	14	9.37
Savoy House	4.46	2.00	9	13	9.35
Crooked River	...	...	...	...	...
Frout Hall	...	...	...	...	...
Frankfield	...	...	...	...	...
Cave Valley	...	...	...	...	...
Mean	6.15	...	...	...	...

WEST-CENTRAL DIVISION.		SEPT., 1916.					SOUTHERN DIVISION.		SEPT., 1916.				
		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.			Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
			Amount.	Date.						Amount.	Date.		
		In.	In.			In.			In.	In.			In.
Whitney	...	8.65	2.30	20	9	11.09	Morant Point L. H.	...	3.44	0.92	4	16	7.31
Mochó, Clarendon	...	4.59	1.00	11	6	...	Elliott Hill	...	9.30	1.80	5	21	...
Spaldings	...	5.90	2.19	30	18	...	Pleasant Hill	...	8.43	1.40	7	14	...
Baillieston	...	...	...	...	...	...	East Prospect	...	4.41	1.10	7	12	7.33
Brokenhurst	...	...	...	...	...	...	Morant Bay	...	5.44	1.68	4	11	8.41
Christiana	...	6.15	1.54	20	14	9.97	Easington	...	6.19	1.62	9	11	8.73
Chudleigh	...	3.84	0.74	12	16	10.86	Bull Bay	...	1.70	0.80	3	4	4.70
Shooter's Hill	...	8.37	3.33	30	15	...	Gordon Town	...	6.21	1.03	9	9	8.57
Spitzbergen	...	...	...	...	...	...	Hope Gardens	...	5.90	...	...	...	7.04
Kendal, Manchester	...	9.69	2.70	30	11	9.53	King's House Gardens	...	2.68	0.87	30	6	5.03
Marshalls Pen	...	5.25	1.33	3	11	8.79	Melrose	...	2.07	1.09	30	11	...
Mandeville	...	5.96	1.30	6	15	10.04	Halfway Tree	...	1.69	0.75	3	8	5.09
Carlton, Mandeville	...	8.71	1.75	12	17	10.04	Lunatic Asylum	...	3.11	1.17	25	9	4.72
The Hill	...	5.49	1.79	1	8	...	Glenmore Road	...	1.73	0.31	25	13	...
Fairfield, Manchester	...	5.71	1.80	3	18	7.80	Kingston P. W. Office	...	0.97	0.18	7	12	4.18
Ulster Spring	...	13.57	4.00	25	15	8.44	Plumb Point L. H.	...	1.41	0.36	25	8	3.81
Freeman's Hall	...	14.82	2.95	4	15	...	Clifton Pen	...	2.00	0.90	3	5	...
Albert Town	...	10.93	2.00	25	13	...	Quarantine Station	...	0.30	0.20	19	2	...
Lowe River	...	10.90	3.42	29	10	10.21	Spanish Town	...	4.53	1.16	6	9	5.30
Troy	...	13.85	1.60	26	16	13.77	Hog Hole, St. Catherine	...	2.94	0.58	6	11	6.33
Windsor Pen, Trel.	...	9.68	1.54	8	19	9.06	Hartlands	...	1.74	1.00	17	4	4.39
Medina	...	5.64	1.27	2	10	...	Belmont, Guanaboa Vale	...	5.70	1.38	24	13	...
Wallingford	...	...	...	...	...	...	Old Harbour	...	5.45	1.74	7	7	6.45
Balaclava Police Station	...	12.63	2.76	3	14	10.31	May Pen	...	3.84	1.50	9	11	7.89
Siloah	...	17.90	3.55	17	18	13.46	Hillside	...	1.89	1.19	4	4	5.01
Appleton Estate	...	...	...	...	...	...	Moreland	...	3.94	1.07	12	9	6.20
Maggotty	...	7.97	1.29	29	15	11.84	Money Musk	...	...	...	...	...	...
Butlers	...	11.58	2.00	29	20	...	Dunkley's, Vere	...	6.39	2.00	11	8	6.52
Dromilly Pen	...	16.71	2.60	11	17	...	Dry River "	...	4.50	1.54	9	7	...
Spring Vale	...	10.17	2.88	11	18	10.61	Denbigh	...	5.43	3.50	11	4	5.99
Garland	...	16.08	2.33	30	18	...	Toll Gate	...	6.69	1.55	4	15	...
Mochó, Catadupa	...	17.64	3.30	30	18	...	Woodleigh	...	4.90	3.43	11	4	...
Springfield, St. Elizabeth	...	19.77	3.25	29	23	5.71	New Yarmouth	...	5.70	1.87	9	7	5.73
Chesterfield, St. James	...	10.62	3.00	30	21	...	Exeter, Vere	...	4.41	1.95	11	7	4.80
Catadupa Rly. Station	...	13.42	2.26	29	21	...	Rhymesbury	...	...	...	...	...	...
Kempshot	...	12.25	2.16	18	17	9.64	Milk River	...	9.60	2.80	4	7	6.33
Cambridge, St. James	...	11.17	3.09	28	19	...	Clarendon Pk. Ry. St.	...	8.52	1.35	11	17	...
Ducketts	...	23.10	3.12	11	21	...	Victoria Town	...	6.81	1.20	11	10	7.48
New Market, Police St.	...	13.51	1.90	29	21	...	Hog Hole, S. Manch.	...	6.45	1.65	7	9	...
The Bog, New Market	...	16.60	2.85	4	24	...	Stone's Hope	...	8.41	2.39	11	10	8.30
Kew Park	...	17.67	2.00	28	22	12.06	Newport, Manchester	...	5.99	1.16	7	18	7.49
Knockalva	...	11.93	2.62	4	22	...	Great Valley, Man.	...	6.77	2.20	4	13	6.63
Ramble	...	...	...	...	...	...	Alligator Pond	...	3.39	1.50	4	8	4.98
Petersville	...	7.78	2.61	29	21	9.83	Southfield, St. Elizabeth	...	3.28	1.37	4	9	...
Darliston	...	14.26	2.01	30	21	13.79	Lititz	...	5.69	1.86	6	14	...
Bluefields	...	10.05	1.18	25	20	12.34	Long Hill	...	...	...	...	...	...
Whithorn	...	9.02	1.50	8	21	12.06	Torrington	...	2.20	10.64	24	10	6.42
Water Works Pen	...	10.60	2.25	9	19	...	Bethlehem, St. Eliz.	...	5.02	1.65	3	14	6.78
Great Valley, Han.	...	...	...	...	...	...	Santa Cruz	...	11.69	2.25	25	17	10.38
Prospect Park	...	...	...	...	...	...	Pedro Plains Police St.	...	0.36	0.21	29	2	4.90
Blackheath	...	...	...	...	...	...	Mountainside	...	2.25	0.75	3	9	...
Fontabelle, Westm.	...	9.97	1.88	24	13	10.90	Black River	...	2.47	0.97	27	10	5.75
Belleisle	...	7.50	1.10	25	12	10.70	Font Hill	...	4.25	2.20	29	8	7.11
Morgan's Bridge	...	14.18	3.40	30	17	12.18	Mount Edgecombe	...	6.43	1.20	29	12	8.39
King's Vale Police St.	...	9.74	1.74	7	18	11.44	Sweet River	...	10.20	1.86	19	17	7.83
							Windsor, Sav.-la-mar	...	12.29	1.74	19	14	7.26
							Orchard	...	9.04	1.84	20	17	...
							Sav.-la-mar	...	8.86	1.70	26	16	6.96
							Meylersfield	...	...	...	...	...	...
							Little London	...	7.51	1.53	4	16	...
							Retreat	...	6.03	1.65	4	11	8.28
							Negril Point L.H.	...	5.96	1.43	26	15	7.51
Mean	...	10.77	...	...	...	...	Mean	...	5.03	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	SEPTEMBER.	
	1916.	Average.
	In.	In.
North-Eastern Division	8.55	8.68
Northern "	6.15	5.70
West-Central "	10.77	10.36
Southern "	5.03	4.95
The Island	7.62	7.42

SHOCKS OF EARTHQUAKE IN SEPTEMBER, 1916.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
	hr. min.		
30	9 15 a.m.	I	Melrose, Halfway Tree; NW. & SE. 3 secs. duration.

This shock was due to either epicentre H. or B₃ or both,
due Sept. 30.2 and 30.1 respectively.

The heaviest rainfall appears to have fallen near the source of the Great River, between Springfield in St. Elizabeth and Ducketts in St. James, when 20 and 23 inches fell.
The rainfall was small along the northern shores from Hope Bay to Falmouth, and also near Kingston.
In other districts the rainfall was fairly uniform.

MAXWELL HALL,

Government Meteorologist.

Montego Bay P.O.

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JAMAICA

W E A T H E R R E P O R T

FOR THE MONTH OF
OCTOBER, 1916.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky ; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
Morant Pt. Light House	ft. 8	29.840	29.794	79.5	82.1	85.1	75.1	10.0	87.0	1*	71.5	28	15.5
Kingston	24	29.820	29.774	74.5	82.4	86.5	73.1	13.4	91.0	9	70.6	19	20.4
Negril Point Light House	33	29.815	29.773	76.6	82.7	85.5	73.7	11.8	88.3	20	69.7	22	18.6
Castleton Gardens	496	..	..	71.0	80.3	82.8	70.0	12.8	92	8	66	19*	26
Hope Gardens†	668	28.837	29.756	73.1	80.5	86.1	70.0	16.1	90	7	68	2*	
Bavinton, Stony Hill**	1,355	..	..	70.7	77.0	79.8	68.6	11.2	84.0	9	65.5	22	18.5
Stony Hill Indus. School	1,400	..	..	70.3	77.0	79.3	68.2	11.1	85	8	67	16*	18
Hill Gardens	4,900	25.193	25.148	63.6	64.8	68.0	57.5	10.5	70	10*	55	19*	15

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall. in	Wind per diem. miles	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.	7 a.m.	3 p.m.			7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.
Morant Pt. Light House††	ft. 8	73.6	82	72.8	74	21.54	..	E	9	E	10	4.4	0.9	1.3	3.6	1.8	1.0
Kingston	24	72.3	93	74.4	77	8.17	143	N	5.0	SSE	7.2	3.2	0.8	2.6	4.8	1.5	1.9
Negril Point Light House†	33	73.1	88	74.6	76	10.75	226	NE	8.1	Var.	11.7	2.9	0.5	2.8	3.5	3.9	1.7
Castleton Gardens	496	69.7	97	73.9	82	25.72	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	69.4	87	74.1	79	12.34	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,355	68.6	93	71.0	82	15.03	..	NNE	2.5	S	4.0	3.3	1.3	1.8	5.2	2.6	0.5
Stony Hill Indus. School	1,400	68.4	92	71.4	83	15.00	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	4,900	60.8	90	62.9	93	22.14	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
† Negril Point Light House. Wind 11 p.m. E. N. E. 8.9
** Bavinton, Stony Hill. Mean Min. temp on grass 66.2
Earth temp. 1 ft. below surface 77.3
" 4 ft. " " 77.4

†† Plumb Point Light House { Average No. of Miles of wind per diem }
{ Greatest }
{ Least } Anemometers blown away on Aug. 15th.

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	OCT., 1916.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount	Date.		
	In.	In.			In.
Manchioneal	36.49	5.35	25	23	18.91
Spring Valley, Portland	19.04	3.90	12	24	
Bath	34.19	7.75	25	23	18.37
Priestman's River	30.37	7.48	25	23	
Moore Town	34.58	6.00	9	14	21.93
Port Antonio	27.37	6.74	25	22	15.16
Fellowship	27.32	4.78	25	22	18.37
Johnson River Bridge	25.51	4.86	12	23	13.85
Shrewsbury	26.82	5.70	9	21	12.25
Cedar Valley, St. Thos.	24.48	5.70	12	18	15.05
Hope Bay	25.05	6.86	25	19	
Moy Hall, St. Thos.	81.27*	11.00	15	31	
Brooklodge	22.79	5.48	12	21	
Lennox	22.45	6.50	25	21	
Farm Hill	34.95	4.95	25	19	12.59
Hill Gardens	22.14	4.15	25	22	18.20
Buff Bay	17.42	5.64	5	15	11.76
Vinery	24.44	5.60	25	14	
Windsor Castle, Port.	16.61	4.37	25	12	
Greenvale, Portland	26.81	5.72	25	19	
Mt. Holstein	19.52	4.27	10	23	12.71
Irish Town	12.37	2.00	18	10	11.46
Rose Hill	18.67	4.10	10	14	
Hardware Gap	18.50				16.36
Stony Hill Ind. School	15.00	2.34	13	23	14.38
Castleton Gardens	25.72	6.12	31	19	15.48
Lawrence Tavern	19.66	3.00	10	17	12.71
Cedar Valley, Red Hills	13.82	2.35	29	14	
Zion Hill	19.04	3.15	25	14	
Agualta Vale	20.02	4.50	25	19	5.78
Water Valley	18.54	6.38	25	20	8.18
Albany, Ry. Station					
Platfield					
Richmond, St. Mary	22.36	9.15	25	19	9.83
Highgate	26.87	8.89	25	16	
Hampstead, St. Mary	25.37	6.43	10	17	
Troja					
Gry's Hill	25.12	5.09	1	12	
Lucky Hill	25.99	6.20	10	19	
Rio Hoe	16.01	4.16	10	20	9.64
Unity Valley	14.37	3.75	10	22	9.50
Moneague	16.80	4.35	10	22	9.94
Claremont	20.46	5.80	10	18	8.41
Albion, St. Ann	18.63	5.76	10	17	9.02
Averham Park	14.84	4.17	10	18	9.35

Mean

22.50

* For details see end of report.

OCT., 1916.

NORTHERN DIVISION.	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date		
	In.	In.			
Port Maria	20.14	4.55	10	24	8.68
Ocho Rios	13.00	2.85	10	13	4.84
Bogue, Ocho Rios	17.38	3.00	24	14	
Rockfield	20.47	5.25	10	22	
Drax Hall	16.10	2.30	15	21	7.58
Liberty Hill	18.48	4.20	15	18	
St. Ann's Bay*	16.49	3.50	15	22	7.22
Seville	17.93	3.55	10	17	7.09
Richmond Estate	15.12	2.50	10	23	7.56
Llandovery	13.48	2.90	10	17	7.48
Runaway Bay	10.00	1.63	13	13	
Brown's Town	14.69	4.72	10	16	8.98
Alexandria	12.13	3.11	10	14	
Chewmagna, St. Ann	10.65	2.70	10	21	8.35
Home Castle	16.25	3.15	15	25	7.14
Richmond Pen	12.45	3.55	10	11	7.78
Mahogany Hall	15.18	2.93	31	26	8.56
Barnstaple	10.62	2.00	11	12	
Brampton Bryan					
Bryan Castle	10.10	1.75	3	15	5.81
Braco	9.50	1.75	11	14	5.42
Arcadia	13.60	2.10	10	15	6.24
Lancaster	7.42	1.50	10	18	5.96
Harmony Hall	8.75	1.89	10	18	5.42
Vale Royal	10.85	1.70	2	18	6.69
Colchis Pen	9.60	1.55	17	20	8.53
Swanswick	14.15	1.50	11	19	
Georgia	11.05	1.50	2	19	6.23
Long Pond	10.91	1.37	3	20	
Duncans	8.42	1.62	10	12	
Hyde Hall	11.40	2.45	3	20	
Steelfield	13.30	2.76	3	20	
Etingdon					
Lottery	16.00	3.55	3	17	6.34
Falmouth	7.54	0.90	1	20	5.77
Florence Hall					
Good Hope					
Unity	14.28	2.40	3	19	
Kent	7.02	0.90	24	16	
Canaan	17.99	3.24	2	20	8.24
Content	9.00	1.16	12	14	
Bellfield	11.29	1.51	31	15	8.44
Guildbro	14.56	2.44	31	27	7.30
Glasgow	12.63	1.65	12	17	
Moor Park	11.33	1.75	15	19	7.87
Rose Hall	11.05	2.69	2	18	
Running Gut	8.77	1.49	2	16	
Cinnamon Hill	14.25	2.65	2	13	
Success	8.40	1.80	2	8	
Montego Bay	11.86	1.51	2	22	7.97
Catherine Hall	12.70	1.48	31	22	8.64
Retirement†	16.35	2.70	19	26	
King Gate	15.48	2.16	31	22	9.12
Round Hill					
Blue Hole	19.50	2.55	1	20	
Haughton Court	13.10	1.80	3	21	7.14
Lucea	9.82	1.35	15	18	8.52
Green Island	12.26	3.40	3	11	
CENTRAL SUB-DIVISION.					
Rio Magno	30.09	4.90	25	13	
Headworks, Rio Cobre	14.40	4.32	13	8	9.79
Linstead	12.09	3.50	13	12	10.32
Berkshire Hall	14.28	2.92	25	17	6.49
Point Hill	10.05	5.40	29	12	16.83
Marlie Hill	16.44	4.15	29	14	
Worthy Park	11.56	2.00	13	12	10.41
Croft Hill	18.44	2.37	13	16	
Chapelton	14.24	4.06	13	21	11.81
Danks Works	14.67	2.40	29	19	12.41
Savoy House	15.10	4.05	13	21	9.96
Crooked River	16.95	4.05	13	17	
Trout Hall	17.85	5.59	13	17	
Frankfield					
Cave Valley					

Mean

13.31

* The rainfall on the 15th fell in 1 hr. and 20 min.

		OCT., 1916.							OCT., 1916.				
WEST-CENTRAL DIVISION.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	SOUTHERN DIVISION.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
			Amount.	Date.						Amount.	Date.		
		In.	In.			In.			In.	In.			In.
Whitney	...	18.55	3.25	12	17	15.20	Morant Point L. H.	...	21.54	4.00	2	27	11.71
Mocho, Clarendon	...	14.10	3.60	13	8	...	Elliott Hill	...	32.89	8.66	26	29	...
Spaldings	...	13.62	2.20	13	25	...	Pleasant Hill	...	31.30	7.25	25	21	...
Baillieston	...	...	...	...	...	...	East Prospect	...	33.74	6.21	25	20	10.41
Brokenhurst	...	28.07	7.40	12	23	14.94	Morant Bay	...	26.56	6.55	25	19	14.22
Christiana	...	11.65	1.84	13	20	12.84	Easington	...	22.84	4.70	13	19	14.22
Chudleigh	...	12.03	3.05	13	22	11.91	Bull Bay	...	5.35	1.65	12	8	10.26
Shooter's Hill	...	...	...	...	...	...	Gordon Town	...	12.90	1.90	21	13	14.15
Spitzbergen	...	...	...	...	...	...	Hope Gardens	...	12.34	...	...	...	...
Kendal, Manchester	...	18.10	4.20	13	16	14.96	King's House Gardens	...	11.64	2.84	18	11	11.09
Marshall's Pen	...	16.01	3.61	12	16	12.75	Melrose	...	12.31	2.78	18	20	...
Mandeville	...	21.13	5.08	12	25	16.56	Halfway Tree	...	...	...	...	...	...
Carlton, Mandeville*	...	20.51	5.50	12	24	16.56	Lunatic Asylum	...	9.57	2.51	13	17	7.93
The Hill	...	18.95	6.20	12	22	...	Glenmore Road	...	10.46	2.50	13	21	...
Fairfield, Manchester	...	17.99	3.26	12	23	10.60	Kingston P. W. Office	...	8.17	1.98	13	18	8.15
Mile Gully	...	12.18	2.58	13	17	...	Plumb Point L. H.	...	11.94	2.68	13	19	7.67
Ulster Spring	...	13.51	2.90	10	18	10.19	Ferry	...	6.40	1.40	29	10	...
Freeman's Hall	...	12.50	2.00	10	17	...	Clifton Pen	...	...	...	...	...	...
Albert Town	...	8.95	2.10	10	14	...	Quarantine Station	...	11.49	3.65	13	12	...
Lowe River	...	18.76	3.50	12	9	12.46	Spanish Town	...	19.47	4.63	13	17	9.59
Troy	...	12.55	2.00	14	17	16.50	Hog Hole, St. Catherine	...	16.76	5.20	13	17	10.09
Windsor Pen, Trel.	...	11.82	1.40	12	25	9.49	Hartlands	...	15.55	3.80	13	12	7.78
Medina	...	12.91	2.30	3	14	...	Belmont, Guanaboa Vale	...	16.77	2.61	13	20	...
Wallingford	...	...	...	...	...	...	Old Harbour	...	18.65	4.71	13	11	11.07
Balaclava Police Station	...	9.54	1.85	13	14	13.38	May Pen	...	14.15	3.90	13	14	11.57
Siloah	...	9.63	1.55	22	19	15.10	Hillside	...	14.78	3.50	13	9	9.78
Appleton Estate	...	...	...	...	...	...	Moreland	...	14.66	3.20	12	14	10.79
Maggotty	...	7.05	1.28	13	15	15.30	Money Musk	...	...	...	...	...	...
Butlers	...	7.94	1.00	13	21	...	Dunkley's, Vere	...	16.96	3.55	12	15	7.01
Dromilly Pen	...	20.07	2.40	12	23	...	Dry River "	...	16.26	3.45	13	14	...
Spring Vale	...	19.86	2.90	2	23	10.42	Denbigh	...	14.00	5.00	13	7	10.11
Garland	...	...	...	...	...	...	Toll Gate	...	14.98	3.30	12	18	...
Mocho, Catadupa	...	15.42	3.05	21	21	...	Woodleigh	...	14.63	5.33	13	7	...
Springfield, St. Elizabeth	...	10.78	1.40	13	23	...	New Yarmonth	...	15.90	3.18	12	13	9.20
Chesterfield, St. James	...	6.85	1.28	12	21	...	Exeter, Vere	...	12.80	2.80	12	12	6.26
Catadupa Rly. Station	...	15.27	2.45	21	24	...	Rhymesbury	...	...	...	...	...	...
Kempshot	...	17.27	2.61	19	26	9.60	Milk River	...	20.38	5.10	13	12	7.56
Cambridge, St. James	...	17.78	2.15	3	23	...	Clarendon Pk. Ry. St.	...	12.38	2.85	13	16	...
Ducketts	...	18.91	3.00	21	23	...	Victoria Town	...	22.04	5.50	12	11	11.55
New Market, Police St.	...	10.21	1.04	20	20	...	Hog Hole, S. Manch.	...	22.66	7.09	12	15	...
The Bog, New Market	...	12.78	1.90	25	18	...	Stone's Hope	...	19.85	4.65	12	17	13.35
Kew Park	...	13.54	2.70	22	23	11.33	Newport, Manchester	...	21.00	6.20	12	25	13.26
Knockalva	...	11.13	1.69	6	22	...	Great Valley, Man.	...	19.13	5.00	13	19	11.37
Ramble	...	17.04	2.75	6	15	...	Alligator Pond	...	15.67	5.08	11	15	8.77
Petersville	...	...	...	...	...	...	Southfield, St. Elizabeth	...	19.61	6.10	13	22	...
Darliston	...	...	...	...	...	...	Lititz	...	15.68	2.32	13	23	...
Bluefields	...	...	...	...	...	...	Long Hill	...	...	...	...	...	...
Whithorn	...	8.04	1.35	31	20	11.93	Torrington	...	16.80	4.50	13	20	11.26
Water Works Pen	...	6.95	1.40	13	20	...	Bethlehem, St. Eliz.	...	18.60	2.53	20	23	11.86
Great Valley, Han.	...	18.13	2.60	6	22	12.17	Santa Cruz	...	12.74	1.76	13	24	12.01
Prospect Park	...	...	...	...	...	...	Pedro Plains Police St.	...	8.37	1.75	11	15	6.60
Blackheath	...	...	...	...	...	...	Mountainside	...	17.03	3.34	22	17	...
Fontabelle, Westm.	...	10.53	1.30	2	17	10.48	Black River	...	8.35	1.42	13	17	8.74
Belleisle	...	9.72	1.35	29	17	9.53	Font Hill	...	10.00	1.85	19	14	9.95
Morgan's Bridge	...	9.95	2.04	2	19	12.94	Mount Edgecombe	...	7.61	2.93	4	18	10.05
King's Vale Police St.	...	9.04	1.44	12	21	10.25	Sweet River	...	6.92	1.50	4	20	10.06
							Windsor, Sav.-la-mar	...	3.98	1.02	28	12	8.40
							Orchard	...	5.23	1.03	28	14	...
							Sav.-la-mar	...	5.64	1.03	4	15	8.99
							Meylersfield	...	...	...	...	...	...
							Little London	...	8.82	1.45	12	18	...
							Retreat	...	10.24	1.82	12	16	10.96
							Negril Point L.H.	...	10.75	2.10	28	17	8.37
Mean	...	14.52	...	...	...	...	Mean	...	14.71	...	...	...	...

* Gauge overflowed.

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	OCTOBER.	
	1916.	Average.
	In.	In.
North-Eastern Division	... 22.50	13.22
Northern	... 13.31	7.46
West-Central	... 14.52	12.02
Southern	... 14.71	10.28
The Island	... 16.26	10.70

SHOCKS OF EARTHQUAKE IN OCTOBER, 1916.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
	hr. min.		
17	3 20 p.m.	II	Mandeville: felt throughout S. Manchester and also as slight shock at Unity Valley.

The details of the excessive rainfall at Moy Hall are here given:—

Day.	In.	Day.	In.
—	—	18	0.15
1	1.50	19	3.00
2	0.50	20	1.27
3	2.75	21	3.75
4	1.50	22	1.00
5	0.75	23	4.15
6	0.15	24	1.75
7	0.50	25	3.00
8	0.05	26	2.75
9	1.50	27	2.75
10	2.00	28	3.75
11	4.00	29	4.00
12	6.00	30	4.00
13	4.00	31	3.75
14	2.00		
15	11.00	Total	81.27
16	2.75		
17	1.25		

This shock was due to epicentre 0₁ ; due Oct. 17.8. This epicentre is near Mt. Olivet in Manchester.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

THE OCTOBER HURRICANE WHICH GENERATED NEAR JAMAICA, OCT. 7TH TO 14TH.

The depression which passed between the 7th and 14th gave heavy rains between the 10th and 13th ; and the depression between the 24th and 27th produced heavy rains on the 25th. An account of these two depressions is given at the end of this report.

On the 12th Oct. a depression passed along the south of Jamaica; it may have generated near Dominica about the same time and place as the St. Thomas hurricane of the 10th and 11th., but more likely it generated 200 or 300 miles to the SE of Jamaica, and it developed rather rapidly. The barometric fall in Jamaica was very small, there was little wind, and not much sea until the night of the 15th and 16th, when long and heavy rollers broke on the NW coast of Jamaica. The centre had then passed Swan Island, where the wind blew a hurricane; and the long and heavy rollers were the result of this concentrated energy.

It is proposed to give an account of the passage of this depression which is interesting from several points of view; a full record of the observation at Kempshot is given; and sufficiently full records at Morant Point, Kingston, and Negril Point, are also given, so that means for the whole Island can be taken.

On Oct. 7th there was a marked rise in the pressure; and as the day was very fine, the rise was attributed to the disturbance telegraphed that morning from Dominica, more than a thousand miles to the east of Jamaica. On the 8th the pressure fell to the mean; the day was again very fine, and unusually calm; and the telegraphic news was that the centre of the disturbance was then near St. Kitts. On the 9th the pressure in Jamaica fell a tenth, and remained steady, or nearly so, all day; this was the usual barometric "message" when a cyclone of great intensity suddenly develops at a great distance.

On the 10th there was a further fall of pressure of about 0.03, so that the Kingston bar. was 29.70, or 0.17 below the mean; and the wind was N or NE, and about 9 miles an hour all over the Island. The wind was therefore in accordance with a storm centre far to the east, but the bar. should not have fallen more than 0.10; consequently when showers began to fall over Jamaica, and when a cirrus-veil drew over the sky at Kempshot, a message was at once sent to Kingston, "look out for a depression forming to the south-east of Jamaica."

On the 11th there was a further fall of pressure of about 0.01; and this was so small that the existence of the depression would have been doubted had it not been for the showers, and cirrus and cirrus-stripes from the S, seen at Kempshot and Kingston. On this day we heard of the terrible hurricane during the night of the 10th and 11th. at the Island of St. Thomas; "almost every building in the city was damaged and some were destroyed." It was also subsequently learned that the U. S. Naval buildings on the adjacent Island of Culebra were simply blown to pieces.

On the 12th at 7 a.m. the bar. was still a little lower, but now the wind had veered to the ENE, and as it appeared that the centre was more or less south of Jamaica, the west end of the Island was told to expect ESE rain squalls all that day. At 3 p.m. the bar. began to rise at the east end, and the wind veered still more to the ESE.

On the 13th this movement was fully confirmed, and Havana was informed of the approaching depression.

On the 14th the depression was near Swan Island, 360 miles W by S of Negril Point, where there is an U. S. radio station; and the depression had developed hurricane force; consequently while the sea was somewhat rough on the night of the 12th and 13th at Sav.-la-Mar and Montego Bay, it was on the night of the 15th and 16th that the fine long rollers broke on the north-western shore, damaging the sea-side roads, and delaying the mails.

It will be seen afterwards that the isobars of the depression as it passed south of Jamaica were oval, and we shall have to refer to the "trough," or central line of lowest pressure, as well as to the "centre" or middle of this line.

Now considering both the barometrie pressure and change of the wind, it appears that the central line passed between Morant Pt. and Kingston about 11 p.m. on the 11th.; and between Kempshot* and Negril about 9.30 p.m. on the 12th; so that the central line passed across the middle of the Island about 10 a.m. on the 12th, at the slow rate of 5 miles an hour, the centre itself being about 120 miles to the south.

From Jamaica to Swan Island it must have moved at about 9 miles an hour; and from Swan Island onwards across the Gulf of Mexico† it moved at the rate of $10\frac{1}{2}$ miles an hour, reaching Mobile and Pensacola in the morning of the 18th., where the wind blew with the "great hurricane" rate of 100 miles an hour, unroofed houses, sank vessels, and did other damage.

The storm area does not seem to have been more than 300 miles in diameter when it reached the southern states; it then moved north through Alabama to the Ohio Valley, and then north-east to Lakes Erie and Ontario, passing to the north of Buffalo. Its diameter had now increased to 700 miles or so, but the wind had greatly diminished in violence. From Pensacola to Buffalo the rate of progress had increased to 26 miles an hour. These are the usual changes when a cyclone moves from the tropics to extra-tropical regions.

If we look at the tables of observations given below we see that the fall of the bar. in Jamaica was small, and as part of the fall was due to the St. Thomas hurricane, the fall due to the depression was so small that it requires special consideration.

Superior mercurial bars. are required to deal with such a depression; they must be read to the nearest two-thousandths of an inch, and the usual four reductions to standards of temperature, elevation, gravity, and Kew must be made; again the readings must be corrected for diurnal variation which goes on regularly hour after hour, storm or no storm; for this variation is as large as the fall due to such a depression. And lastly, after every care has been taken, there is in Jamaica small constant differences between the different stations as shown by monthly and annual means, year after year.

And the three out-stations, Morant Pt., Kempshot and Negril Pt., must be referred to Kingston by applying the small reductions given in W. R. No. 457.

By this time the third decimal figures cannot be depended on, but it will be advisable to retain them until the reduced bar. readings have been subtracted from the average pressure for the time of the year, and the fall below mean obtained; and then the third figures should be rejected.

The following table gives the reduced bar. readings at the four stations at 7 a.m. and 3 p.m. from Oct. 9th to 12th inclusive:—

TABLE I.

Station.	9th.		10th.		11th.		12th.	
	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.
	29	29	29	29	29	29	29	29
Morant ..	.733	.728	.680	.690	.728	.695	.670	.725
Kingston ..	.741	.704	.690	.707	.683	.674	.676	.702
Kempshot ..	.752	.738	.717	.729	.705	.711	.693	.706
Negril ..	.732	.706	.701	.710	.677	.679	.657	.672
Means ..	.740	.719	.697	.709	.698	.690	.674	.701

The gradients over the Island were clearly very small: and the irregularities due to differences in local pressure and the numerical reductions are also small, seldom as much as 0.02, and never more than 0.03.

* At Kempshot the trough passed at 5 p.m. with a fall in the bar. and heavy rain-squalls.

† In the Gulf the large fine S.S. "Heredia" encountered the hurricane and suffered some damage.

But as the mean pressure for this time of the year is 29.876 the fall below mean is also small; and then these irregularities render accuracy impossible in either attempting to obtain the rate of fall, or the gradient, so that only general warnings of the approach of such depressions can be given.

But even the small fall below mean was chiefly due on the 9th and 10th to the distant St. Thomas hurricane, so that the approach of the depression from a distance, or its development close to Jamaica, was in this case partly masked; and this shows that people should take every care after the existence of a cyclone has been announced, for it generally happens that another cyclone or depression complicates matters; and this caution is published every year in the arrangements made for the coming hurricane season.

Now the telegrams on the 8th and 9th assumed that the St. Thomas hurricane would move NW; so that our bars. would continue low for two or three days, and so that the usual trade-wind would be checked.

But as a matter of fact the St. Thomas hurricane proceeded N towards Bermuda, so that on and after the 12th that hurricane would hardly affect our bars., in consequence of the direction of motion rather than the increase of distance, although it might impede the trade-wind.

The following table gives results for the middle of the Island at 11 a.m. for the four days; in the fourth column rough estimates are given of the fall due to the St. Thomas hurricane, and the direction and velocity of the wind in miles per hour have not been corrected for the usual trade-wind. The miles per hour were taken from the anemometer totals for the 24 hours.*

TABLE II.

Day and hour.	Bar. (reduced).	Fall below mean.	Fall due to		Wind observed.	
			St. Thos. hurricane.	Depress.		
	in.	in.	in.	in.		m. p. hr.
9th 11 a.m.	29.730	0.15	0.10	0.05	NNE	7
10th "	.703	.17	0.10	0.07	NNE	9
11th "	.694	.18	0.06	0.12	NE	8
12th "	29.688	0.19	0.04	0.15	E	15

Now if the isobars had been circular the wind would have been NE at 11 a.m. on the 12th when the "centre" was south of Jamaica, instead of E; and any correction for the ESE trade-wind will hardly help matters as far as direction is concerned, and will only put wrong the miles per hour; so that it appears that the isobars were oval, having their common axis, or central line of lowest pressure, more or less NE and SW.

Also it will be noticed that the velocity of the wind agrees as a whole with the fall below mean due to the depression multiplied by 93, as proved elsewhere to be the rule.

It was stated at the commencement of this article that it was more likely that this depression generated 200 or 300 miles SE of Jamaica rather than further away; and this statement is confirmed by its slow rate of motion past Jamaica, and its accelerated rate as it moved on past Swan Island.

Consequently we come to the rather important conclusion that there is little or no difference between an advancing depression where the fall of pressure and energy is confined chiefly to the central part, and to a depression generating a few miles away, and developing as it begins to move along its course. There are the same light winds and showers; the cirrus veil over the blue intervals in the sky; rain squalls; and the heavy upper canopy of cirro-stratus, or strato-cumulus, as the case may be. And believing that the radiation of cirrus and cirrus-stripes from the centre involves the formation of the vortex, in this case the vortex was developed on the morning of the 10th., or at the commencement of the fall of pressure noticeable on the 11th.

It is true that the sea may indicate whether the advancing depression has developed or not; but in this case again the sea established the fact that the depression developed as it passed Jamaica, and became a dangerous hurricane.

* Except for Morant Pt. where they were taken from the estimates at 7 a.m. and 3 p.m.

OBSERVATIONS.

The barometer have been reduced to the standards of temperature, level, gravity, Kew, and diurnal variation. The velocity of the wind is given in miles per hour.

MORANT POINT LIGHTHOUSE—MR. C. DURRANT.

October.			Bar. (Stand:)	Wind.	Clouds.	Notes.	In preceding 24 hours.	
							Rain.	Wind.
							in.	miles.
9th	7 a.m.	..	29.759	Calm	7 Str: N	Threatening rain	1.07	
	3 p.m.	..	.754	N 20	10 Nim: N	Rain T and L	..	
10th	7 a.m.	..	.706	N 20	6 Nim: N	Passing showers	0.77	
					2 Alt. Cu. N			
					1 Ci. Cu: N			
	3 p.m.	..	.716	N 10	8 Nim: N	Rain squalls	..	
11th	7 a.m.	..	.694	N 10	6 St. NE	Cloudy, rain squalls	0.93	
	5.30 p.m.	..	.721	N 2	10 Nim: N	Rain squalls	..	
12th	7 a.m.	..	.696	E 20	10 Nim: E	do.	2.06	
	3 p.m.	..	.751	SE 10	8 St. SE	do.	..	
13th	7 a.m.	..	29.817	S 10	7 St: S	Clearing	0.83	

Wind velocity in squalls did not exceed 25 m. p. h.

KINGSTON—MR. J. F. BRENNAN.

October.			Bar. (Stand.)	Wind.	Clouds.	Notes.	In preceding 24 hours.	
							Rain.	Wind.
							in.	miles.
9th	7 a.m.	..	29.741	NE 4	10 Str. N	..	0.00	137
	3 p.m.	..	.704	S 5	3 Str. NE	..	..	..
					2 Cir. NW			
10th	7 a.m.	..	.690	N 3	7 Str. NE	Light rain	0.55	100
	3 p.m.	..	.707	N 5	10 Str. NE	Showers: t.	..	..
11th	7 a.m.	..	.683	NW 3	10 Cir. W	Fine	0.15	121
	3 p.m.	..	.674	W 5	5 Str. NE	Cir-stripes	..	..
					4 Cir. S			
12th	7 a.m.	..	.676	NE 2	6 Str. E	..	0.33	112
					3 Cum. E			
	3 p.m.	..	.702	SE 10	1 Cir. SW	Rain squalls	..	..
					10 Str. SE			
13th	7 a.m.	..	29.787	SE 16	Cum-nimb.	Showers	1.87	336
					10 Str. SE			
					Cum-nimb.			

October.	Bar. (Stand.)	Wind.	Clouds, &c.	In preceding 24 hours.		NOTES.
				Rai.	Wind.	
7th 7 a.m.	29.935	E 10	Clear	in. 0.09	miles. 113	Very fine; on the 5th the bar. was about the mean 29.88; on the 6th 29.92.
3 p.m.	.922	Var.	10 Cum. E.	..	..	Clouded in afternoon as usual. At noon received notice of indication of disturbance this morning near Dominica.
8th 7 a.m.	.892	ENE 5	2 Str. NE	0.00	108	Very fine; Str. lower than usual and topping the interior hills.
Noon	.876	Calm	8 Cum. Z.	..	..	Cumuli detached; blue sky between. Storm near St. Kitts, 1,030 miles east of Jamaica.
4 p.m.	.862	Calm	8 Cum. Z.	..	..	Quite unusual, remarkable fall in the bar.
9th 3½ a.m.	.779	Calm	Showers	..	..	Dull; fog at times (i.e. low Str.) Cir. inclined to settle down to Alt.-Str.
7 a.m.	.768	Calm	5 Cum. NE; 5 Cir. NE.	0.32	66	At this time of year Cir. at Kempshot is generally NE.
11 a.m.	.772	E 10	8 Cum. NE.	..	..	Cumuli detached; blue sky between.
3 p.m.	.754	E 5	1 Cum. NE; blue sky	..	..	Very fine.
7 a.m.	.733	NE 5	10 Str. NE; showers	0.27	141	Rain began before 7 a.m. Fog at times (i.e. low Str.). During night centre passed over Island of St. Thomas, 870 miles to E of Jamaica.
11 a.m.	.731	NE 5	10 Str. NE; Cir. veil	..	..	Str. or fracto-Str. moving fast. The Cir. veil shows a halo round the sun.
3 p.m.	.745	NE 4	10 Str. NE	..	..	Showers and fog at times.
5½ p.m.	.735	E 20	10 Str. NE; some Cir. S	..	..	Showers; a little Alt. Cum. Z: the Cir. and Alt. Cum seen between passing clouds of Str. or fr.-Str.
11th 7 a.m.	.721	E 8	10 Str. ENE; some Cir. SSW	0.74	175	Showers during night.
3 p.m.	.727	E 10	10 Str. or Nimbus NE.	..	..	Rain at times.
7 a.m.	.709	ESE 10	10 Str. Nimbus ESE	0.88	195	Fog; rain squalls at times.
3 p.m.	.722	E 6	10 Str. Nimbus E	..	..	Constant light rain.
5 p.m.	.697	E 10	10 Str. Nimbus E	..	..	Rain squalls; the heaviest was 57 miles per hr. according to the pressure-plate.
13th 7 a.m.	.768	ESE 15	2 Str. SE; 2 Str. Cum. SE	1.93	294	Dense upper canopy of Cir.-Str. Str. fast; Str. Cum., slow and unceasing.
11 a.m.	.784	SE 12	2 Str. SE; 8 Str. Cum SE	..	..	The canopy of Cir.-Str. shows a halo round the sun seen between passing clouds.
3 p.m.	.829	SE 12	8 Str. Cum. SSE	..	..	Light showers.
7 a.m.	.848	ESE 10	10 Str. Cum SE	0.44	280	"Hard" clouds; showers during night. The canopy still to be seen.
3 p.m.	.874	SE 4	6 fr. Str. SE; 4 Cir-Str.	..	..	The canopy still there. Centre near Swan Island.
7 a.m.	29.886	E 6	1 Str. Cum.	0.10	189	Very fine; some scattered Cirrif. cloud without motion. Visibility.

NEGRIL POINT LIGHTHOUSE—MR. J. S. BROWNHILL.

October.		Bar. Stand.)	Wind.	Clouds.	Notes.	In preceding 24 hours.	
						Rain.	Wind.
						in.	miles.
9th	7 a.m.	.. 29.742	NE 4	10 Str.	..	0.13	181
	3 p.m.	.. .716	N 15	9 Cir-Str S	..	..	..
10th	7 a.m.	.. .711	N 11	10 Nimb. N	Showers	0.00	187
	3 p.m.	.. .720	NE 7	10 Str			
				Cum NE	do.	..	..
11th	7 a.m.	.. .687	NE 6	10 Str. SE	..	0.00	251
	3 p.m.	.. .689	N 16	10 Str. SE	..	..	..
12th	7 .m.	.. .667	N 12	10 Str. E	Showers from NE	1.48	339
	p. .	.. .682	NE 12	10 Nimb. SE	Showery	..	..
13th	7 a.m.	.. .726	SE 10	10 Nimb. SE	Squalls	1.50	453

13th 2 a.m. Wind shifted from NE, 12, to SE, 30.
 3 a.m. Lowest bar. 29.662.
 4 a.m. Strongest wind SE, 40.

THE DEPRESSION OF OCTOBER 24TH TO 27TH.

At 12.30 p.m. on the 24th Oct. the Weather Service issued the following circular:—"From local observations there appears to be some evidence of a weather disturbance about 200 miles to the ESE of Jamaica. Local barometers falling slowly." This was followed by a similar notice from Washington a few hours later.

At 7 a.m. on the 25th the centre was south of Morant Bay, and remained near there all day, moving a few miles E and W, south of that town and of Morant Point; and the news from Washington was to the effect that there was a large depression over the Caribbean Sea with a central disturbance some distance south of Kingston apparently moving north-west.

The central disturbance was shallow, and there was little or no wind with it, but it threw down heavy rains over the north-east of Jamaica, as much as 9 inches falling on the 25th at Richmond and Highgate; there was a heavy thunderstorm that night, or rather a series of thunderstorm over the whole of that district; and of course the rivers came down in flood.

At 7 a.m. on the 26th the centre of this depression or disturbance was over the Morant Point Lighthouse; at 3 p.m. it was north of Port Maria; and on the 27th it passed away keeping our winds SW and S, while our bars. rose.

On the 30th while our winds were still in the same direction, there was another small fall in the bars., which seemed to indicate a development in the disturbance to the north of Cuba.

The following are the observations made at the four chief stations in Jamaica:—

MORANT POINT LIGHT-HOUSE—MR. C. DURRANT.

October.		Bar. (Stand.)	Wind.	Clouds.	Notes.	In precedin 24 hours.	
						Rain.	Wind.
						in.	miles.
24 h	7 a.m.	.. 29.788	N 20	9 Str. N			
	3 p.m.	.. .759	N 20	10 Str. N	Rain		
25th	7 a.m.	.. .717	E 18	10 Nimb. E	Rain squalls		
	3 p.m.	.. .701	NNE 30	10 Str. NNE	do		
26th	7 a.m.	.. .675	Calm	4 Str. NE	Clearing up	3.90	
				6 Cir-Str.			
	3 p.m.	.. .732	SW 8	1 Str. S	Fine		
				7 Alt.-cumNW			
27th	7 a.m.	.. 29.766	SW 3	10 cir-Str.	..	0.18	

25th 10.30 a.m. Wind backed to N, 20; 6 Str. Cum. NE.
 5.30 p.m. to 7.20 p.m. Wind veered to E, 40 or 50; and then backed to NE.
 26th The wind was light all day.

KINGSTON.—MR. J. F. BRENNAN.

October.		Bar. (S. and).	Wind.	Clouds.	Notes	In preceding 24 hours.	
						Rain.	Wind.
24th	7 a.m.	29.758	NE 6	{ 2 Str. SE 3 Cir. S	Rain 3.30 to 4.30 p.m.	in. 0.00	miles.
	3 p.m.	.739	SW 8	{ 10 Str - Cir. NE			
25th	7 a.m.	.698	NE 5	{ 7 Str. NE 3 Cir.-Str. E	Rain 12.40 pm. to Mt.	0.05	
	3 p.m.	.686	W 10	{ 8 Str. NE 2 Cir.-Str. NE			
26th	7 a.m.	.665	NW 5	{ 10 Str. & Nim. N	Rain 3 to 4 a.m. & T. storm 4 a.m. 7 p.m. Rain Cloudy	0.22	
	3 p.m.	.713	SW 3	{ 3 Str.-Cir. SE 5 S. C. W 2 Cir. NW			
27th	7 a.m.	29.757	NW 4	10 Cir & Cir. S. NW		0.00	

KEMPSHO.—MR. MAXWELL HALL.

October.		Bar. (Stand).	Wind.	Clouds.	Notes.	In preceding 24 hours.	
						Rain.	Wind.
24th	7 a.m.	in. 29.801	m.p.h. N 5	Str. N	Fog	in. 0.12	miles. 52
	3 p.m.	.777	NW 5	10 Cum N	Cir-stripe SW		
25th	7 a.m.	.728	NNW 2	Clear	Cir-stripe ESE	0.21	135
	3 p.m.	.725	E 4	10 Str. NE	Light rain		
26th	7 a.m.	.740	N 2	10 Str. N	do.	0.30	90
	3 p.m.	.733	NW 4	{ 2 Str. WNW 8 Cum.			
27th	7 a.m.	29.772	SW 10	10 Cir.- WNW Str.	Cir.-stripes NW	0.04	123

24th 3 p.m. The stripe lay about NW and SE, and moved at right angles to its length.
25th 7 a.m. The stripe radiated from ESE as well as moved.
8.30 a.m. A fine Cir.-stripe E and W moving fast from SSW.
26th 9 a.m. Wind changed: NW, 8: 10 Str. NW.
3 p.m. The Cum. was without motion.
4.30 p.m. Cir.-bands (irregular) diverging and moving from E. Cirrus veil showing halo round sun.
27th. 7 a.m. Large irregular Cir. bands radiating and moving from NW., a stripe also from SSW.

NORFOLK POINT LIGHT-HOUSE—MR. J. S. BROWN HILL.

October.		Bar. (Stand.)	Wind.	Clouds.	Notes.	In preceding 24 hours.	
						Rain.	Wind.
24th	7 a.m.	in. 29.784	m.p.h. N 15	1 Cum. N	Blue sky	in. 0.08	miles. 374
	3 p.m.	.750	N 20	9 Cum. N			
25th	7 a.m.	.694	N 9	1 Cum. N	Blue sky	0.00	236
	3 p.m.	.691	N 12	7 Cum. N			
26th	7 a.m.	.716	N 8	10 Str. N		0.12	209
	3 p.m.	.743	NW 12	9 Cum. N			
27th	7 a.m.	29.740	W 8	10 Str.	Passing showers	0.00	133

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CLOUD DRIFT

AS OBSERVED

AT KINGSTON, JAMAICA,

BY

J. F. BRENNAN, Assoc. M. Inst. C.E., F.R. Met. S.

During the years 1907-1913.



CLOUD DRIFT

As observed at Kingston, Jamaica, (Latitude 17° 58' N., Long. 76° 48' West,) during the years 1907-1913.

CLOUD MOVEMENTS.

There is an element of interest attached to the study of upper air movements, especially from the standpoint of the Meteorologist, and within recent years such an unlimited amount of attention has been directed to investigations appertaining to this subject by the aid of such appliances as box-kites, pilot balloons, etc., at various Stations, that eventually we shall be possessed of valuable data to further these researches.

The present Article, however, deals with the cloud movements at different levels as observed in Kingston in order to determine the mean cloud drift and covers a period of observation of six years and five months dating from August 1907 to December 1913, inclusive. The results are confined to the main three groups of clouds, i.e., the Lower, Middle, and Upper.

The Lower Cloud includes the Strato-cumulus, Nimbus, Stratus and Fracto stratus.

The Middle Cloud includes Cumulus, Alto-cumulus and Alto-stratus.

The Upper Cloud includes the Cirrus, Cirro-stratus and Cirro-cumulus.

The Lower Cloud is estimated to have a limit of altitude of about 1,000 feet. The Middle, 4,000 feet, and the Upper, 10,000 to 12,000 feet. But these heights have yet to be determined for the latitude of Kingston.

Each Class, or Group of Cloud, is dealt with, separately, and account is taken of the frequency of cases of observed direction of the drift occurring at the time of the 7 a.m.*, as well as at the 3 p.m.* daily records for each month, and quite irrespective, of course, of the percentage amount, or area of sky covered by cloud appearing at the time.

During the period under review the total numbers of observed directions tabulated for the purpose of these computations for each class of cloud are as follows:—

Lower Cloud	..	..	..	1,446
Middle Cloud	..	..	..	1,836
Upper Cloud	..	..	..	1,517
Total				4,799

The observed directions adopted and summarised are limited to the eight points of the compass in relation to the True Meridian. But the resultants are reduced to the nearest thirty-two points of the compass.

Each month's set of clouds, with directions of drift (from), are totalled, and these totals for each direction are employed as the components in the procedure to determine the Resultant arrived at by the usual method of the "Polygon of Forces" or by Lambert's well known formula, and the bearing of such Resultant is reduced to degrees of azimuth from the True North, Easterly or Westerly, as it occurs and then converted into its corresponding compass bearing.

LOWER CLOUD.

By reference to Tables I and II it will be seen that in every instance the afternoon drift is observed to lay many degrees further North than in the forenoon. This is particularly noticeable in April when it is East for the forenoon and North-east-by-East in the afternoon, and in October when it is South-east-by-South in the forenoon and East in the afternoon. The general average for the year gives the bearing of the afternoon drift 23° further to north than in the forenoon, i.e., the forenoon being East-by-South and the afternoon, East-by-North. This is possibly, attributable to the higher altitude attained by the afternoon lower cloud on account of the atmosphere then being of a higher temperature than that of the morning, and exposed to the influence of the higher elevation of the prevailing Trade Wind blowing above the local surface wind as occurs over Kingston.

There is also a tendency for the forenoon cloud, as seen in Table I, to gradually advance in direction South-easterly, month by month, from January, when it is about East-by-North, to a bearing nearly South-east in October,—but it is not so evident in the afternoon, results shown in Table II.

The 7 a.m. drifts from about East in January and farthest South-easterly (South-east-by-South) in October.

The 3 p.m. drift is farthest North in the semi-circle in April (North east by East) and farthest South-easterly (East-by-South) in June.

By the results shown in Tables I and II for both the forenoon and afternoon clouds we get the maximum percentage, 42.1 and 41.0 respectively as being observed from East, with South-east suc-

* These being the principal hours of observation for Kingston.

ceeding, giving 21.4 and 17.9 per cent. respectively; but in the morning we have the least number of cases from North-west, being 1.8 per cent., and the afternoon the least from South-west, being 2.3 per cent.

For the whole year the normal direction for the 7 a.m. is East-by-South, and for the 3 p.m. East-by-North, representing a range of arc of about 23° .

For the year the mean direction of the surface wind for 7 a.m. is North-by-East, and for 3 p.m. South-east, and differs from the lower cloud. But it should be noted that all the lower clouds are not of the Stratus class.

MIDDLE CLOUD.

Similar conditions of drift do not appear to altogether prevail with this class as with the lower. The results derived from both the forenoon and afternoon observations as shown in Tables III and IV reveal a tendency to a near coincidence in each month in bearing. There is, however, a departure in the month of October, for the afternoon resultant gives the bearing somewhat East-north-east (North 62° East) whereas, the forenoon shows about East-by-South (North 98° East). Then, also, in a less degree in July, when the afternoon indicates 15° further to the North. But the difference in the year's means between the two sets is only 5° , i.e., East-by-North (North 78° East), as compared with East-north-east (North 73° East).

There is evidently also a disposition, from month to month, to show a variation, or shifting, of the bearing of the drift. For in the month of April means of Tables III and IV, we have a direction from nearly North-east-by-east (or North 54° East). And during the hurricane disturbed months of July August and September, this class of cloud becomes almost due East, or North 88° East, then in the months following gradually resuming a somewhat north-easterly bearing.

As in the case of the Lower Clouds, the preponderance of drift is from the East, and this is particularly evidenced in the afternoon drift for June and July, when we have 56 cases out of 87, or about 64 per cent., and 77 cases out of 101, or 77 per cent. respectively. Then, followed by North-east, occupying second place in point of percentage. In the forenoon, generally, there is a very insignificant percentage of drift apparent from the South, South-west, West and North-west, representing only about 5 per cent. for each bearing. Then, in the afternoon, almost similar conditions prevail, but with a remarkably smaller percentage of cases from the South, representing only 1.8 per cent.

There are certain directions from which this class of cloud was not at all seen to drift in some months during the whole period of over six years. For example, neither South-west nor North-west occurred in the month of February in the 7 a.m. set, and other months have similar features of absence.

The general mean drift of the Middle Cloud, inclusive of the 7 a.m. and 3 p.m., for the entire period, places the bearing about 18° further North of East than the Lower Cloud. The combined mean of the Lower Cloud being about East (North 93° East) and that of the Middle about East-north-east (North 75° East).

UPPER CLOUD.

With this class of clouds it has been found sufficient, and expedient, to combine the 7 a.m. and 3 p.m. sets into Table V, for it has been discovered that the variation of the bearing of the drift between the forenoon and afternoon does not amount to more than a few degrees; but it may be mentioned, however, that the afternoon series of observations shift inappreciably to the North of the forenoon sets. As would be expected with clouds of such high altitude, the influence of any diurnal effect would not so readily manifest itself as with the clouds of a lower level which would be more affected by surface conditions.

The mean for the whole year gives the drift North 82° West which corresponds with a compass bearing of West by North.

Table V shows that in clouds of this class the greatest frequency of their presence occurs in September and the least in March.

Figure 1 gives the mean compass bearing, or direction from, for each month of the year.

During the undisturbed six months, January, February, March, April, May and December, or months which may be regarded as being exclusive of the Tropical Hurricane Season, and when the atmospheric conditions may be taken as fine, the normal bearing of drift for these months is from North 107° West which is equivalent to a compass bearing of about West-south-west and agrees nearly with the results arrived at by other observers.

Mr. John D. Quin, of St. Croix, Danish West Indies, mentioned this bearing in his article in the United States Monthly Weather Review, November 1907, page 511, and it is left to be seen whether this is supported generally by other stations in this latitude, North.

But if we embody the other months from June to November (6 months), which cover most of the Tropical Hurricane period, a mean bearing of North 57° West is derived, equivalent to North-west-by-North, a clear swinging around an arc of 50° from the point arrived at for the fine months, owing no doubt to either Cyclonic action or to Solar effect.

By examining Figure 2, evidence is produced of the steady progress in the Western semicircle of the drift from a bearing South-westerly to more and more North. Beginning with the month of February at the extreme point, where it is found to be North 120° West, or South-west-by-West, and following the several months until we reach the month of August, we have the direction of drift so far as North 15° West, or North by West. The veering around to extremes takes place in a 6 month's period.

The late Professor E. B. Garriott of the United States Weather Bureau tabulates in his articles on "West Indian Hurricanes" (W. B. No. 232) year 1900, page 25, that the greatest frequency of hur-

ricane occurs in August and from later statistics, including subsequent disturbances, Professor Oliver L. Fassig of the United States Weather Bureau, (in W. B. No. 487) year 1913, computes the greatest frequency in September. Then after passing this period there occurs a remarkably uniform South-westerly return of the Upper Cloud drift until February is again reached. This retrogression being at the rate of about 25° per month, and a total compass change or swing, or veering round, of 105° .

In the months of August and September, the greatest percentage of frequency of direction is from the North and North-west, and the least from South-east and South.

In the foregoing results no discrimination has been made for the different descriptions of upper cloud, for the reason that they are for the most part comprised of the cirrus type. And in a summary of the number of observations, it is found that we have about 62 per cent. of cirrus, 32 per cent. of cirro-stratus and only 6 per cent. of cirro cumulus.

Taking the Kingston daily records of the United States Weather Bureau from the year 1899 to 1902, although covering a different series of years than those under review for their 8 a.m. observations of the upper cloud for February, and for August, being at the extremes, and reducing each of them so as to obtain their Resultants, the writer derives a bearing of South-west-by-West (North 120° West) for February, which is identical with the mean bearing given in Table V. And for August we obtain North-by-West (North 12° West) or a difference of only 3° . The August means from 1907 to 1913 being North 15° West.

The cirrus group of this class presents special importance in studies concerning the locating of a hurricane vortex, and it appears to be the opinion of several observers that the feathery cirrus of high altitude is an index of the cyclone centre, and is more or less divergent from the vortex, affording a means of aiding the determination of the bearing of such centre within reasonable limits of distance and bearing, hence these determinations may afford some aid in Meteorological matters.

It is on record that when the volcanos in Central America in the Spanish Main were eruptive in January 1835, ashes appeared to have been borne, from Coseguina, on the Bay of Fonseca, in four days to Kingston, Jamaica, in the teeth of the Trade Wind (vide Scott's "Elementary Meteorology" 1890 page 243). Now, the bearing of Fonseca Bay, near San Salvador is just West-south-west (North 112° West) from Kingston, and about 750 miles distant, and the normal direction of drift of the upper cloud for January is North 116° West: practically coincident. This supports the belief that, occasionally, these high upper currents of air convey volcanic dust. In this particular case after travelling with the high upper currents the dust may have descended into the East-by-North Trade Wind and driven back into the direction of Kingston, but this is perhaps conjectural.

Table VI has been prepared so as to show the means of the amount of each class of cloud present at the time of observation for each of the years 1908 to 1913, for the 7 a.m. and for the 3 p.m. sets, in tenths of the sky. The 3 p.m. lower gives the greatest amount.

For the purpose of illustrating the number of occasions the different classes of cloud were *visible*, during a single year, one year (1908) was selected, and the following gives the number of days out of the 366 of that year.

7 a.m.	Lower	Cloud	..	..	75	days
"	Middle	"	..	..	120	"
"	Upper	"	..	..	123	"
3 p.m.	Lower	"	.	..	158	"
"	Middle	"	..	..	222	"
"	Upper	"	..	..	121	"

It will therefore be seen that, in a great number of days there was a total absence, of many of the clouds, or clear sky. There were fewer cases in the 7 a.m. set when any Lower cloud could be seen and the drift taken than in the 3 p.m. one, being 75 as against 158. Likewise, with the middle cloud. But with the cirrus an equal frequency of observations was presented at both hours.

In order to render the definitions of the bearings tabulated more clearly understood, it may be stated that the zero, or 0, is taken as true North, and 180° as South, and all bearings are arranged as East or West of this line. For example, North 45° East equals North-east, and North 135° East equals South-east.

Table VII has been added to give the amount of *Upper Cloud*, in tenths, for each month. And it will be noted that the maximum appearance of this cloud occurs in September as 2.9 tenths, and the least in the earlier months. January showing only 0.5 tenth. The mean for the year is 1.7 tenth, or about one-fifth of the sky covered on an average.

TABLE 1.—LOWER CLOUD.

1907-1913.

7 a.m.

Bearing.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Percentage.
N	4	3	2	..	3	..	..	..	2	5	2	3	24	5.3
NE	9	6	3	3	2	2	..	3	2	3	10	5	48	10.7
E	16	19	17	17	13	17	19	11	11	6	25	18	189	42.1
SE	6	5	6	5	5	12	4	5	7	22	11	8	96	21.4
S	2	2	3	..	1	4	1	3	8	8	3	1	36	8.0
SW	3	..	..	..	2	2	..	1	5	8	8	4	33	7.4
W	..	2	..	..	3	3	..	..	2	2	1	2	15	3.3
NW	..	..	2	1	..	1	..	1	..	2	..	1	8	1.8
Totals	40	37	33	26	29	41	24	24	37	56	60	42	449	100.0
Resultant Bearings	E	E	E	E	E b S	ESE	E b S	ESE	SE	SE b S	E b S	E b S	E b S	

TABLE II.—LOWER CLOUD.

3 p.m.

Bearing.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Percentage.
N	5	8	12	19	8	2	4	8	12	10	8	8	104	10.4
NE	14	8	7	14	17	4	8	11	20	18	20	16	160	16.0
E	29	25	29	30	31	21	34	45	40	37	50	37	408	41.0
SE	7	9	9	7	9	20	16	20	19	34	18	10	178	17.9
S	3	1	8	2	1	1	..	2	7	4	6	1	36	3.6
SW	2	1	4	..	1	1	1	2	3	5	1	2	23	2.3
W	4	4	2	2	3	1	..	6	5	4	..	1	32	3.2
NW	3	2	4	7	8	5	3	4	4	6	6	4	56	5.6
Totals	67	58	75	81	78	55	66	101	110	118	109	79	997	100.0
Resultant Bearings	E b N	E b N	E	NE b E	ENE	E b S	E	E	E b N	E	E	E b N	E b N	

TABLE III—MIDDLE CLOUD.

1907-1913.

7 a.m.

Bearing.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Percentage.
N	6	6	7	18	8	6	2	2	5	6	1	8	75	10.6
NE	20	11	10	21	14	11	3	10	4	10	25	17	156	22.1
E	24	33	33	29	28	29	25	20	8	10	14	22	275	39.0
SE	5	4	7	..	4	5	3	3	6	17	5	2	61	8.7
S	2	3	..	1	5	3	6	4	2	3	5	2	36	5.1
SW	4	..	2	..	4	4	1	2	5	3	9	3	37	5.2
W	6	1	5	..	4	4	2	2	2	4	5	2	37	5.2
NW	5	..	5	1	3	4	3	1	3	2	2	..	29	4.1
Totals	72	58	69	70	70	66	45	44	35	55	66	56	706	100.0
Resultant Bearings	ENE	E b N	ENE	NE	E b N	E b N	E b S	E	E	E b S	E b N	ENE	E b N	..

TABLE IV.—MIDDLE CLOUD.

3 p.m.

Bearing.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Percentage.
N	7	8	13	20	9	5	6	3	3	12	11	11	108	9.6
NE	24	22	23	27	12	11	11	20	18	15	26	30	242	21.4
E	49	47	45	36	50	56	77	44	29	28	38	49	548	48.5
SE	9	5	8	2	3	8	2	18	11	11	7	10	94	8.3
S	..	2	2	1	3	..	..	1	4	3	3	1	20	1.8
SW	2	3	1	1	4	2	..	1	4	3	2	2	25	2.2
W	8	1	5	1	7	1	1	4	6	5	4	1	44	3.9
NW	6	1	4	1	2	4	1	1	5	11	9	4	49	4.3
Totals	105	89	101	89	90	87	101	92	80	88	100	108	1,130	100.0
Resultant Bearings	ENE	E b N	ENE	NE b E	E b N	E b N	E b N	E	E b N	ENE	ENE	ENE	ENE	

TABLE V.—UPPER CLOUD.
1907-1913.
7 a.m. and 3 p.m. combined.

Bearing.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Percentage.
N ..	3	..	..	3	9	20	18	41	45	22	5	2	168	11.1
NE ..	..	..	1	1	2	14	23	36	36	20	5	..	138	9.1
E ..	2	3	..	1	4	2	7	13	16	9	2	..	59	3.9
SE ..	1	2	..	..	..	1	9	10	11	9	1	..	44	2.9
S ..	5	2	1	3	2	9	4	11	11	9	3	3	63	4.2
SW ..	20	15	8	21	25	17	25	12	27	25	26	53	274	18.0
W ..	17	14	17	20	74	87	79	28	42	42	48	27	495	32.6
NW ..	3	2	2	6	16	47	50	39	43	39	20	9	276	18.2
Totals ..	51	38	29	55	132	197	215	190	231	175	110	94	1517	100.0
Resultant Bearings.	WSW	SW b W	W b S	W b S	W	WNW	WNW	N b W	NW b N	W NW	W	WSW	W b N	

TABLE VI.—AMOUNT OF CLOUD—THREE CLASSES.

YEAR.	CLOUDS; IN TENTHS.					
	Lower.		Middle.		Upper.	
	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.
1908 ..	1.2	3.0	1.3	2.1	1.8	1.6
1909 ..	1.5	2.9	0.8	1.9	1.8	2.0
1910 ..	1.5	3.1	0.7	2.1	1.8	1.9
1911 ..	1.1	3.0	0.8	2.1	1.8	1.5
1912 ..	1.3	3.5	0.7	1.9	1.2	1.2
1913 ..	1.6	3.4	1.1	1.4	1.4	1.9
Means ..	1.	3.1	1.8	1.9	1.7	1.7

TABLE VII.

Amount of Upper Cloud: in tenths of the sky, combined means for 7 a.m. and 3 p.m.

YEAR.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Means for the Year.
1908	0.2	1.3	1.7	1.7	2.1	2.8	2.7	2.4	3.3	1.1	0.3	0.8	1.7
1909	0.5	1.3	0.3	0.5	1.3	3.3	2.4	3.3	3.1	2.9	1.5	2.0	1.9
1910	0.6	1.2	0.0	1.7	1.5	2.7	3.1	2.7	3.0	1.5	2.0	2.3	1.9
1911	0.5	0.6	0.7	0.5	2.4	3.2	3.4	2.4	2.6	2.2	1.0	0.2	1.6
1912	0.2	0.3	0.4	0.5	0.9	1.4	1.3	2.1	2.6	2.6	1.2	0.7	1.2
1913	1.0	0.2	0.2	1.1	1.7	2.8	2.8	2.5	3.0	2.0	2.5	1.5	1.8
Means	0.5	0.8	0.6	1.0	1.6	2.7	2.6	2.6	2.9	2.1	1.4	1.2	1.7

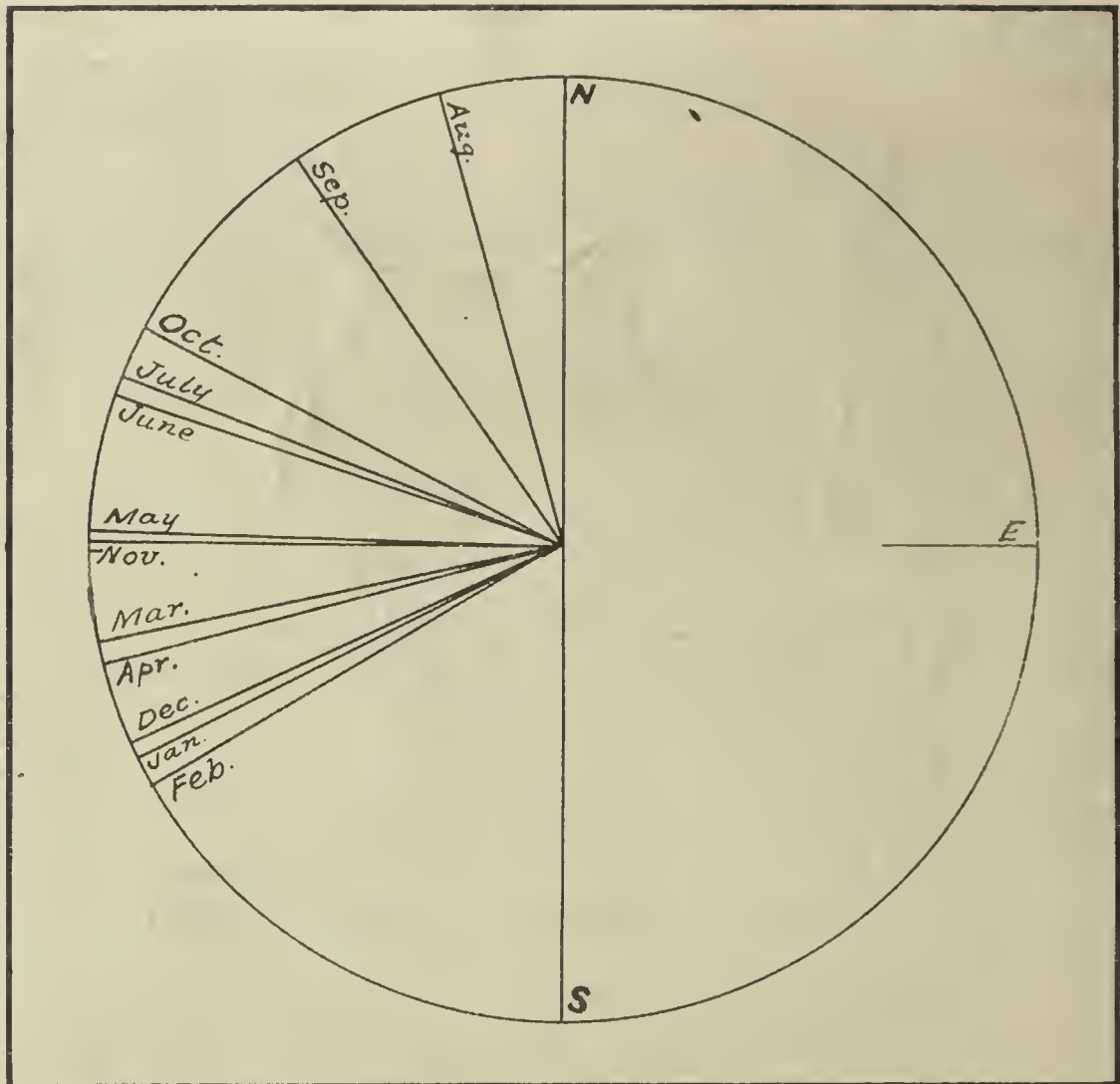


Figure 1. Upper cloud drift, mean direction from, for each month.



Figure 2. Upper cloud drift. Resultant directions for each month showing the gradual veering around of drift from south-westerly in February to about NNW in August and the early return to south-westerly.

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JAMAICA

WEATHER REPORT

FOR THE MONTH OF
NOVEMBER, 1916.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min	Date.	Range
		in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	ft. 8	29.890	29.850	79.6	81.4	83.5	75.5	8.0	86.0	13	72.0	15*	14.0
Kingston ..	24	29.869	29.822	72.7	80.2	84.1	71.5	12.6	88.5	6	65.8	28	22.7
Negril Point Light House ..	33	29.868	29.817	74.9	81.9	84.5	72.7	11.8	88.3	7	66.4	27	21.9
Castleton Gardens ..	496	..	..	71.2	78.2	82.5	70.0	12.5	92	1	64	17	28
Hope Gardens† ..	668	29.858	29.759	72.7	80.5	84.8	69.1	15.7	89	6	61	30	28
Bavinton, Stony Hill** ..	1,355	..	..	69.6	74.9	78.4	67.9	10.5	82.0	6	64.0	17*	18.0
Stony Hill Indus. School ..	1,400	..	..	69.3	74.4	77.4	67.6	9.8	83	16	65	25	18
Hill Gardens ..	4,900	25.233	25.187	62.3	63.6	66.7	55.9	10.8	70	7	59	3*	11

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.						
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.			
		°	°	°	°			m.	m.	L.	M.	U.	L.	M.	U.			
Morant Pt. Light House†† ..	ft. 8	72.4	79	71.6	72	13.35	in	miles	NE	18.0	ENE	17.8	5.5	0.4	0.7	4.6	0.7	0.7
Kingston ..	24	70.6	93	72.8	79	11.27	168	ENE	6.2	SE	10.6	2.6	1.8	1.9	4.5	2.0	1.6	
Negril Point Light House† ..	33	71.4	88	74.2	78	6.20	253	ENE	10.2	E	12.6	3.6	1.2	2.2	5.0	2.2	1.1	
Castleton Gardens ..	496	68.9	93	72.6	84	35.87	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	68.6	87	73.6	79	12.57	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill ..	1,355	67.4	93	69.7	84	18.56	..	NNE	2.2	ENE	4.4	4.4	1.4	1.4	5.3	2.4	0.3	
Stony Hill Indus. School ..	1,400	67.4	93	69.7	85	17.77	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	58.2	87	61.7	93	27.63	..	..	..	..	..	..	..	..	..	..	..

* and on other days.

† Negril Point Light House.

** Bavinton, Stony Hill.

† Hope Gardens. Bar. read at 9 a.m. and 3 p.m.

Wind 11 p.m. N.E. 10.6

Mean Min. temp. on grass 65.7

Earth temp. 1 ft. below surface 75.9

“ 4 ft. “ “ 76.3

†† Plumb Point Light House { Average No. of Miles of wind per diem } Anemometers blown away on Aug. 15th.

{ Greatest

{ Least

THE RAINFALL.

Nov., 1916.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.						NORTHERN DIVISION.					
Nov., 1916.						Nov., 1916.					
Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	
	Amount.	Date.					Amount.	Date.			
In.	In.			In.		In.	In.				
Manchioneal ...	26.39	4.28	9	25	14.23	Port Maria ...	25.85	3.30	19	23	10.69
Spring Valley, Portland ...	28.26	3.10	23	24	..	Ocho Rios ...	17.07	3.00	9	13	7.73
Bath ...	36.46	4.95	9	26	12.95	Bogue, Ocho Rios ...	19.42	2.50	22	23	..
Priestman's River ...	27.68	4.33	13	22	..	Rockfield ...	26.66	6.00	22	25	..
Moore Town ...	54.38	8.50	22	17	..	Drax Hall ...	19.98	4.50	9	24	10.04
Port Antonio ...	30.47	3.36	20	20	16.39	Liberty Hill ...	20.13	4.02	22	19	..
Fellowship ...	46.14	7.12	19	24	27.19	St. Ann's Bay* ...	23.21	3.93	19	22	9.00
Johnson River Bridge ...	24.60	3.44	8	24	6.70	Seville ...	24.76	3.50	9	19	9.80
Shrewsbury ...	61.64	9.80	20	21	30.11	Richmond Estate ...	..	..	..	..	..
Cedar Valley, St. Thos. ...	34.38	6.00	13	18	13.09	Llandoverly ...	19.32	4.85	9	15	9.16
Hope Bay ...	36.65	6.10	9	23	..	Runaway Bay ...	14.73	3.00	19	17	..
Moy Hall, St. Thos. ...	71.27	12.50	13	27	13.14	Brown's Town ...	27.00	9.52	22	18	10.58
Brooklodge ...	31.15	6.69	13	22	..	Alexandria ...	16.20	2.74	20	14	..
Lennox ...	40.60	6.25	19	25	..	Chewmagna, St. Ann ...	15.15	3.30	8	19	6.91
Farm Hill ...	44.87	5.40	21	17	34.16	Home Castle ...	26.05	7.60	22	22	7.35
Hill Gardens ...	27.63	3.10	28	23	14.71	Richmond Pen ...	13.64	3.50	8	14	5.99
Buff Bay ...	30.37	6.70	19	21	16.12	Mahogany Hall ...	18.40	5.08	8	23	7.14
Vinery ...	32.05	6.60	21	18	..	Barnstable ...	19.06	4.20	20	12	..
Windsor Castle, Port. ...	21.38	5.40	18	15	..	Brampton Bryan ...	..	..	..	..	..
Greenville, Portland ...	45.17	9.74	21	28	..	Bryan Castle ...	18.30	3.05	22	17	6.40
Mt. Holstein ...	35.64	6.94	22	28	26.11	Braco ...	11.85	3.00	8	19	5.88
Irish Town ...	13.50	2.45	13	12	12.01	Arcadia ...	25.00	5.20	8	18	6.47
Rose Hill ...	30.31	5.80	1	18	..	Lancaster ...	14.30	2.90	8	19	6.34
Hardware Gap ...	22.00	..	..	..	13.02	Harmony Hall ...	12.34	2.57	8	19	5.75
Stony Hill Ind. School ...	17.77	1.90	12	19	7.14	Vale Royal ...	18.50	3.48	20	20	7.30
Castleton Gardens ...	35.87	6.08	30	24	14.42	Colchis Pen ...	14.65	7.15	8	18	5.81
Lawrence Tavern ...	13.75	1.17	14	15	8.33	Swanswick ...	17.54	3.50	20	18	..
Cedar Valley, Red Hills ...	17.95	4.69	14	15	..	Georgia ...	15.25	3.33	20	21	..
Carew Castle ...	11.72	2.70	14	17	..	Long Pond ...	16.75	3.75	20	20	..
Agualta Vale ...	25.80	5.40	19	20	11.02	Duncans ...	10.07	2.00	8	14	..
Water Valley ...	29.32	4.35	21	20	9.95	Hyde Hall ...	19.10	4.85	20	19	..
Albany, Ry. Station ...	23.70	4.70	21	20	8.57	Steelfield ...	16.30	3.20	20	17	..
Platfield ...	..	..	..	..	..	Etingdon ...	..	..	..	..	..
Richmond, St. Mary ...	25.52	5.58	21	22	11.65	Lottery ...	16.35	4.90	20	14	5.38
Highgate ...	..	..	..	..	..	Falmouth ...	12.18	2.72	9	20	4.92
Hampstead, St. Mary ...	28.94	5.15	19	24	..	Florence Hall ...	..	..	..	..	..
Troja ...	..	..	..	..	..	Good Hope ...	15.25	4.60	20	18	..
Guy's Hill ...	32.68	6.05	22	18	..	Unity ...	11.14	2.27	8	16	..
Lucky Hill ...	31.99	6.00	22	20	..	Kent ...	13.60	2.75	22	17	..
Rio Hoe ...	26.95	4.23	21	25	9.40	Canaan ...	13.64	4.03	20	21	5.03
Unity Valley ...	27.38	3.76	22	25	9.01	Content ...	13.72	3.52	20	18	..
Moneague ...	32.80	4.84	21	26	9.90	Bellfield ...	..	..	..	..	..
Claremont ...	31.85	5.80	22	23	10.46	Guilsbro ...	13.88	3.26	20	27	5.78
Albion, St. Ann ...	19.93	6.30	22	24	9.74	Glasgow ...	14.78	4.35	20	15	..
Averham Park ...	25.13	4.95	22	19	11.85	Moor Park ...	11.75	2.00	20	17	7.90
Mean ...	31.18	..	..	..	..	Rose Hall ...	14.06	2.15	9	18	4.50
						Running Gut ...	14.13	2.79	9	17	4.57
						Cinnamon Hill ...	12.52	2.40	8	15	4.64
						Success ...	12.16	2.60	8	13	4.52
						Montego Bay ...	9.45	2.75	20	22	4.30
						Catherine Hall ...	9.93	2.55	21	23	4.58
						Retirement ...	12.00	3.50	20	24	..
						King Gate ...	7.03	1.81	20	20	3.86
						Round Hill ...	..	..	..	..	..
						Blue Hole ...	11.52	1.75	18	17	..
						Haughton Court ...	6.30	1.00	8	13	4.05
						Lucea ...	7.77	1.25	18	13	5.71
						Green Island ...	9.07	4.00	19	11	..
						CENTRAL SUB-DIVISION.					
						Rio Magno ...	31.20	5.50	21	14	..
						Headworks, Rio Cobre ...	17.49	4.50	14	15	4.74
						Linstead ...	12.82	3.50	14	17	5.92
						Berkshire Hall ...	21.56	3.41	22	27	8.04
						Point Hill ...	20.35	4.85	14	17	10.16
						Marlie Hill ...	14.96	4.00	13	12	..
						Worthy Park ...	15.00	3.74	14	12	4.18
						Croft Hill ...	14.03	3.50	13	14	..
						Chapelton ...	8.85	2.73	13	10	4.49
						Danks Works ...	8.94	2.95	13	18	4.99
						Savoy House ...	8.48	3.09	13	21	5.62
						Crooked River ...	19.18	3.00	12	9	..
						Trout Hall ...	13.36	3.50	13	19	..
						Frankfield ...	..	..	..	..	..
						Cave Valley ...	..	..	..	..	..
						Mean ...	15.51	..	..	..	..

WEST-CENTRAL DIVISION.	Nov., 1916.					SOUTHERN DIVISION.	Nov., 1916.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.			In.	
Whitney	20.45	4.80	14	12	7.07	Morant Point L. H.	13.35	2.02	13	20	6.90
Mochos, Clarendon	10.77	4.22	13	6	...	Elliott Hill	24.94	3.21	14	28	...
Spaldings	16.88	4.35	13	24	...	Pleasant Hill	25.28	3.18	13	22	...
Baillieston	...	...	...	...	...	East Prospect	28.42	5.75	8	23	5.76
Brokenhurst	...	...	...	...	...	Morant Bay	22.30	4.35	8	19	6.44
Christiana	15.17	2.38	13	18	6.82	Easington	20.16	3.72	12	15	5.35
Chudleigh	14.89	2.75	13	24	8.81	Bull Bay	11.06	5.10	14	7	3.71
Shooter's Hill	11.82	3.38	13	19	...	Gordon Town	14.79	2.80	12	12	9.57
Spitzbergen	...	...	...	...	...	Hope Gardens	12.57	...	...	...	...
Kendal, Manchester	16.91	4.57	13	11	5.99	King's House Gardens	12.52	4.35	14	10	3.31
Marshall's Pen	13.26	5.97	12	10	6.16	Melrose	14.09	4.52	14	17	...
Mandeville	18.84	7.10	12	19	6.29	Halfway Tree	13.33	4.30	14	13	3.66
Carlton, Mandeville	16.97	5.95	12	14	6.29	Lunatic Asylum	10.90	2.83	14	14	3.57
The Hill	18.26	8.28	12	11	...	Glenmore Road	12.07	3.94	14	17	...
Fairfield, Manchester	10.95	4.07	12	17	6.46	Kingston P. W. Office	11.27	3.25	14	16	3.00
Greenvale	12.18	2.05	1	16	...	Plumb Point L. H.	15.65	3.40	12	19	2.32
Ulster Spring	20.47	2.50	7	18	6.49	Ferry	13.60	4.75	14	12	...
Freeman's Hall	13.40	2.12	18	17	...	Clifton Pen	...	...	...	...	...
Albert Town	10.00	2.30	7	15	...	Quarantine Station	11.42	2.45	14	13	...
Lowe River	20.86	3.84	1	16	9.12	Spanish Town	12.57	4.80	14	16	3.56
Troy	6.30	2.20	13	10	6.46	Hog Hole, St. Catherine	11.97	4.45	14	14	4.34
Windsor Pen, Trel.	11.58	2.15	18	21	6.03	Hartlands	17.06	3.25	13	15	2.23
Medina	7.40	2.18	12	12	...	Belmont, Guanaboa Vale	19.22	5.86	13	19	...
Wallingford	...	...	...	...	...	Old Harbour	10.89	3.50	13	12	3.60
Balaclava Police Station	6.23	1.69	19	12	5.91	May Pen	15.35	5.50	13	9	4.51
Siloah	10.95	1.85	19	16	8.94	Hillside	...	...	...	...	...
Appleton Estate	...	...	...	...	...	Moreland	14.60	3.17	12	14	6.70
Maggotty	10.67	2.50	12	15	6.80	Money Musk	...	...	...	...	...
Butlers	6.45	2.00	12	13	...	Dunkley's, Vere	15.34	4.20	12	15	3.92
Dromilly Pen	15.18	2.75	8	19	...	Dry River	12.92	3.45	12	15	...
Spring Vale	16.34	4.40	1	19	6.08	Denbigh	16.50	6.00	12	10	4.79
Garland	...	...	...	...	...	Toll Gate	16.40	4.60	12	14	...
Mochos, Catadupa	...	...	...	...	...	Woodleigh	17.30	6.80	12	10	...
Springfield, St. Elizabeth	8.36	1.62	4	15	...	New Yarmouth	14.24	3.01	12	11	2.66
Chesterfield, St. James	...	...	...	...	...	Exeter, Vere	9.50	1.75	12	18	3.39
Catadupa Rly. Station	8.05	1.39	8	21	...	Rhymesbury	...	...	...	...	...
Kempshot	9.38	2.30	2	26	6.18	Milk River	11.95	4.00	12	10	4.26
Cambridge, St. James	5.48	0.73	8	18	...	Clarendon Pk. Ry. St.	15.97	4.35	13	15	...
Ducketts	...	...	...	...	...	Victoria Town	17.23	5.41	12	12	4.52
New Market, Police St.	9.39	1.90	12	14	...	Hog Hole, S. Manch.	18.32	4.35	12	13	...
The Bog, New Market	7.94	1.80	12	16	...	Stone's Hope	16.08	4.57	13	16	5.01
Kew Park	6.41	1.19	18	16	5.52	Newport, Manchester	18.18	4.42	12	19	6.29
Montpelier	6.69	1.75	8	16	...	Great Valley, Man.	17.39	3.97	12	12	4.24
Knockalva	11.64	2.97	18	16	...	Alligator Pond	13.08	4.26	12	10	2.97
Ramble	...	...	...	...	...	Southfield, St. Elizabeth	13.97	4.95	13	11	...
Petersville	9.37	2.16	12	16	6.49	Lititz	8.29	2.27	13	12	...
Darliston	4.96	1.05	8	15	7.48	Long Hill	...	...	...	...	...
Bluefields	8.47	2.03	1	17	8.63	Torrington	16.62	4.35	12	11	6.99
Whithorn	4.30	0.63	8	16	6.92	Bethlehem, St. Eliz.	10.57	2.95	12	12	7.32
Water Works Pen	4.30	0.60	10	12	...	Santa Cruz	7.99	1.50	13	15	5.89
Great Valley, Han.	9.07	2.30	5	13	5.81	Pedro Plains Police St.	8.70	3.70	13	10	4.01
Prospect Park	...	...	...	...	...	Mountainside	12.22	2.00	9	10	...
Blackheath	...	...	...	...	...	Black River	5.96	1.34	12	10	4.53
Fontabelle, Westm.	...	...	...	...	...	Font Hill	10.85	2.65	12	15	5.32
Belleisle	...	...	...	...	...	Mount Edgecombe	7.06	1.50	19	17	5.00
Morgan's Bridge	6.62	1.60	27	16	5.30	Sweet River	4.92	1.30	24	15	3.80
King's Vale Police St.	5.52	1.80	19	16	5.46	Windsor, Sav.-la-mar	3.29	0.67	12	16	3.64
						Orchard	3.47	0.60	24	14	...
						Sav.-la-mar	3.52	0.74	12	15	3.10
						Meylersfield	...	...	...	...	...
						Little London	3.71	1.04	24	11	...
						Retreat	4.33	0.86	4	10	4.79
						Negril Point L.H.	6.20	2.35	13	20	3.21
Mean	11.80	...	...	...	...	Mean	12.72	...	...	...	...

NOTES.			SHOCKS OF EARTHQUAKE IN NOV., 1916.			
COMPARATIVE TABLE OF RAINFALL. (Based upon the "Average" Stations only.)						
DIVISIONAL AND ISLAND RAINFALL.	NOVEMBER.		Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
	1916.	Average.				
	In.	In.				
North-Eastern Division	31.18	13.54		hr. min.		
Northern	15.51	5.91				
West-Central	11.79	5.74				
Southern	12.72	4.56				
The Island	17.80	7.44	19	6 20 a.m.	I	Mt. Holstein; N & S .003; rumbling sound.

The heaviest rainfall was recorded at Moy Hall; Shrewsbury in Portland having 61.64 inches. The details of the rainfall at Moy Hall are given here:—				This shock was from epicentre B 2 due Nov. 19.5		
Day.	In.	Day.	In.			
—	—	17	0.50			
1	4.00	18	0.16			
2	4.00	19	0.50			
3	1.50	20	1.50			
4	3.00	21	2.75			
5	2.25	22	2.50			
6	2.10	23	1.50			
7	2.50	24	1.00			
8	2.75	25	0.10			
9	3.00	26	0.00			
10	3.75	27	0.05			
11	4.75	28	0.00			
12	11.60	29	0.00			
13	12.50	30	0.25			
14	2.06					
15	0.20	Total	71.27			
16	0.50					

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

THE NOVEMBER DEPRESSION AND ITS DEVELOPMENT.

After the last depression had moved away on October 30th., there was a considerable fall on November 2nd in the barometric pressure; but the cloud-drift referred the matter to an increased action in the same depression.

The barometer subsequently rose on November 5th., but fell again on the 7th to a tenth or more below the mean, with indications of a centre to the south-west of Jamaica.

On the 8th at 7 a.m. the barometer at Kempshot was falling again after a slight rise, the wind and rain from E.N.E. were increasing, and the report from Kingston was awaited with some anxiety; but the line was interrupted, and at 9 a.m. the following circular for the west end was issued:—

"Weather disturbance south-west of Jamaica apparently moving on a north-west course; but every care should be taken."

At 9.15 a.m. there was a remarkable squall at Kempshot; in 10 minutes the barometer fell 0.03, and rose as quickly again; the pressure plate registered a maximum velocity of 75 miles per hour; but the wind hardly shifted. At 3 p.m. at Negril there was a fall of a tenth, but there was no recorded squall, and again no shift of the wind. Consequently these sudden falls in the pressure cannot be referred to any "trough" phenomena.

On the 9th the weather did not clear; the barometer was again a tenth or more below the mean; the winds were easterly. At 11 a.m. a wireless was received from Washington that there was low pressure over the Caribbean Sea with high pressure to the northward; and our strong easterly winds may have been a combination of NE from the high, and SE from the low pressure.

On the 10th the weather was much the same as on the 9th, and the upper cloud-drift uncertain.

On the 11th there was a slight fall in the morning in the pressure, with wind E at 20 miles and rain; but at the Negril Point the wind and stratus veered to SE; and with a rising barometer it was considered that the depression to the SW which had been noticed on the 8th had oscillated once or twice instead of moving away as was then supposed, and that it was now really on the move.

This was true; but instead of the weather clearing, strong ESE winds set in, with heavy showers or constant rain over Jamaica, as the storm developed on its course towards Swan Island. It was near that Island on the 13th*, near western Cuba on the 14th, and over the south-eastern part of the Gulf of Mexico on the 15th moving northward.

OBSERVATIONS.

The barometers have been reduced to the standards of temperature, level, gravity, Kew, and diurnal variation. The velocity of the wind is given in miles per hour.

KINGSTON.—MR. J. F. BRENNAN.

Day and hour.		Bar. (Stand.)	Wind.		Clouds.	During preceding 24 hours.	
						Rain.	Wind.
		in.	m.p.h.			in.	miles.
7th	7 a.m.	29.757	N	5	1 Cir.	0.41	127
	3 p.m.	.749	S	3	6 Cum.		
8th	7 a.m.	.764	NE	5	3 Cir.	0.31	106
	3 p.m.	.790	NE	5	7 Str.		
9th	7 a.m.	.757	N	7	1 Cir. W.	0.25	117
	3 p.m.	.790	SE	12	7 St. & St. Cu.		
10th	7 a.m.	.757	NE	5	3 Ci.	0.86	108
	3 p.m.	.766	SE	12	10 Str.		
11th	7 a.m.	.750	NW	2	10 Nim. & Cir. Nim.	0.31	123
	3 p.m.	.798	SE	18	8 Cu.		
12th	7 a.m.	.786	SE	22	2 Cir.	0.40	230
	3 p.m.	.825	SE	26	6 Str.		
13th	7 a.m.	.813	SE	12	1 Cu.	1.74	405
	3 p.m.	.832	SE	24	3 Ci. S.		
14th	7 a.m.	.830	SE	26	10 Str. Nimb.	1.31	417
	3 p.m.	.915	SE	22	6 Nim. & Str.		
					4 Ci. S.		
					2 St.		
					8 Nim.		
					10 Nim. & Cu.-nim.		
					9 Nim. & Str.		
					(T) Ci.		
					10 Nim.		
					10 Str.		
					10 Nim.		

7th. Rain 5 to 6 p.m. and thunderstorm.

12th. SE Rain squalls Noon to Midnight.

13th. SE Rain squalls continued Midnight to Midnight at intervals of about 1 hr. 20 min. At 1.30 p.m., wind SE, 36 miles per. hour.

14th. Heavy rain Midnight to 7 a.m. and at intervals to 4 p.m. Rainfall for 14th, 3.25 inches.

*As on Oct. 14th it took 2 days for the "sea" to reach Montego Bay, which was very high from 15th to 17th.

KEMPSHOT.—MR. MAXWELL HALL AND MISS C. M. HALL.

Day and hour.		Bar. (Stand.)	Wind.		Clouds.	During preced- ing 24 hours.	
						Rain.	Wind.
		in.	m.p.h.			in.	miles.
7th.	7 a.m.	29.781	ENE	10	1 Str.	ENE	0.14
	3 p.m.	.817	E	12	{ 1 Str. 9 Str. Cum	E fast	
8th	7 a.m.	.784	ENE	12	10 Nimb.	NE	0.45
	3 p.m.	.826	E	12	{ 1 Str. 9 Str. Cum.	E N	
9th	7 a.m.	.800	E	8	10 Str.	E	0.89
	3 p.m.	.812	E	16	{ 2 Str. 8 Str. Cum.	E E.	
10th	7 a.m.	.802	E	10	{ 4 Str. 6 Cir. Str.	E	0.06
	3 p.m.	.798	E	5	{ 6 Str. 4 Alt. Cum.	E fast ENE slow	
11th	7 a.m.	.766	E	20	10 Nimb.	E	0.22
	3 p.m.	.806	E	4	{ 8 Str. 2 Cir.	E	
12th	7 a.m.	.786	ENE	4	10 Str. Cum.	SE	0.08
	3 p.m.	.823	ESE	2	10 fog		
13th	7 a.m.	.815	ESE	10	{ 6 Str. Cum. 4 Cir. Str.	ESE SE	0.13
	3 p.m.	.815	ESE	6	10 Str.	ESE	
14th	7 a.m.	.828	SE	8	{ 2 Str. Cum. 8 Cir. Str.	SE S	0.30
	3 p.m.	29.887	S	5	{ 2 Str. Cum 8 Cir. Str.	SSE	

7th 10 a.m. Some cirrif. cloud NE: some cirrus stripes SW.
 11 a.m. Cirrus veil veil forming over the blue.
 10th 7 a.m. The Cir. Str (or Alt Str.) was light and uniform.
 13th 12.30 p.m. Heavy squall from SE, 50 miles an hour.

NEGRIL POINT LIGHT-HOUSE.—MR. J. S. BROWNHILL.

Day and hour.		Bar. (Stand.)	Wind.		Clouds.	During preced- ing 24 hours.	
						Rain.	Wind..
		in.	m.p.h.			in.	miles
7th	7 a.m.	29.754	E	7	8 Cir. Stripes	W	0.00
	3 p.m.	.782	E	10	10 Str. Cum	SE	
8th	7 a.m.	.769	E	6	10 Str. Cum.	N	0.35
	3 p.m.	.694	NE	10	10 Str.	N	
9th	7 a.m.	.770	NE	9	6 Alt. Cum.	NE	0.01
	3 p.m.	.779	SE	3	10 Str. Cum.	SE	
10th	7 a.m.	.761	NE	10	10 Alt. Str.	SE	0.22
	3 p.m.	.788	SE	8	10 Str. Cum	SE	
11th	7 a.m.	.744	N	5	9 Alt. Cum.	E	0.07
	3 p.m.	.783	SE	7	10 Str. Cum.	SE	
12th	7 a.m.	.764	NE	9	10 Str.	SE	0.62
	3 p.m.	.806	SE	15	10 Nimb.	SE	
13th	7 a.m.	.783	E	8	10 Str.	SE	2.35
	3 p.m.	.782	SE	30	10 Str.	SE	
14th	7 a.m.	.810	SE	24	10 Str.	SE	0.09
	3 p.m.	29.866	SE	12	10 Str.	S	

8th. 3 p.m. Barometer at 2 p.m. 29.803; at 4 p.m. 29.784. There was no squall with this drop
 M. H. .

MAR 13 1917

No. 465.



JAMAICA

WEATHER REPORT

FOR THE MONTH OF
DECEMBER, 1916.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.991	29.950	76.9	80.4	81.8	75.6	6.2	81.0	7	61.0	19	16.0
Kingston ..	24	29.970	29.913	67.9	81.8	84.6	66.5	18.1	88.0	24	61.8	31	26.2
Negril Point Light House ..	33	29.975	29.914	70.6	82.6	84.5	68.1	16.4	87.4	14	62.4	31	25.0
Castleton Gardens ..	496	..	..	64.7	81.7	85.0	63.6	21.4	90	4*	58	4	34
Hope Gardens† ..	668	29.985	29.895	68.1	83.6	86.2	64.8	21.4	89	14*	61	30	28
Bavinton, Stony Hill** ..	1,355	..	..	64.6	77.2	79.6	62.9	16.7	82.0	20*	59.5	8	22.5
Stony Hill Indus. School ..	1,400	..	..	65.4	76.6	79.4	63.5	15.9	83	22	62	1*	24
Hill Gardens ..	4,900	25.292	25.225	60.0	62.6	65.7	52.4	13.3	70	27	49	20	21

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		°	°	°	°			in	miles	°	m.	°	m.	L.	M.	U.	L.
Morant Pt. Light House†† ..	ft. 8	70.3	80	68.7	68	1.59	..	NE	16.0	NE	16.0	3.0	0.6	0.5	2.1	1.4	0.0
Kingston ..	24	64.0	87	66.8	61	0.02	162	NNE	5.8	SE	9.8	1.8	0.5	1.1	0.9	2.2	0.5
Negril Point Light House† ..	33	64.5	81	68.4	63	1.22	231	NE	9.6	Var.	12.2	0.6	0.9	1.7	1.3	2.6	1.0
Castleton Gardens ..	496	62.7	93	69.1	65	3.02	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	61.7	81	68.7	61	0.16	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill ..	1,355	60.9	88	64.1	64	0.53	..	N	2.3	NNW	4.0	1.7	1.7	1.2	2.8	2.9	0.2
Stony Hill Indus. School ..	1,400	61.1	86	63.7	64	0.37	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	53.6	81	57.9	83	0.97	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
† Negril Point Light House. Wind 11 p.m. N.E. 9.9
** Bavinton, Stony Hill. Mean Min. temp. on grass 57.2
Earth temp. 1 ft. below surface 72.9
4 ft. " " 75.0

†† Plumb Point Light House { Average No. of Miles of wind per diem }
{ Greatest }
{ Least } Anemometers blown away on Aug. 15th.

THE RAINFALL.

DEC., 1916.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

	DEC., 1916.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount	Date.		
NORTH-EASTERN DIVISION.	In.	In.			In.
Manchioneal	2.33	0.47	27	14	8.02
Spring Valley, Portland	...	...	...	...	...
Bath	2.51	0.42	7	13	8.80
Priestman's River	1.69	0.42	9	7	...
Moore Town	8.00	3.00	10	7	25.39
Port Antonio	2.81	1.03	6	6	13.78
Fellowship	5.20	0.95	6	15	19.92
Johnson River Bridge	1.30	0.49	7	10	5.53
Shrewsbury	5.89	2.20	7	7	23.89
Cedar Valley, St. Thos.	0.40	0.40	27	1	5.52
Hope Bay	5.70	0.90	6	14	...
Moy Hall, St. Thos.	...	...	...	...	...
Brooklodge	0.31	0.16	25	4	...
Lennox	8.70	1.75	7	14	...
Farm Hill	0.77	0.50	8	2	10.94
Hill Gardens	0.97	0.30	7	6	10.73
Buff Bay	7.17	2.00	6	14	11.81
Vinery	7.80	1.62	6	8	...
Windsor Castle, Port.	4.19	1.17	6	7	...
Greenvale, Portland	6.24	1.07	27	18	...
Mt. Holstein	1.93	0.75	27	18	17.04
Irish Town	0.00	...	...	...	4.62
Rose Hill	0.45	0.45	7	1	...
Hardware Gap	1.50	...	...	...	6.86
Stony Hill Ind. School	0.37	0.29	7	2	4.16
Castleton Gardens	3.02	1.07	31	7	12.92
Lawrence Tavern	0.64	0.37	7	2	4.48
Cedar Valley, Red Hills	1.02	1.02	5	1	...
Zion Hill	0.43	0.31	6	2	...
Agualta Vale	5.03	1.00	27	9	9.35
Water Valley	5.61	2.20	27	11	7.97
Albany, Ry. Station	...	...	...	...	...
Platfield	...	...	...	...	...
Richmond, St. Mary	4.54	3.03	27	7	9.50
Highgate	...	...	...	...	...
Hampstead, St. Mary	4.40	1.44	27	9	...
Guy's Hill	3.83	1.95	27	5	...
Lucky Hill	4.34	1.60	27	8	...
Rio Hoe	3.53	1.56	27	9	9.10
Unity Valley	3.41	1.33	27	9	7.66
Moneague	3.22	1.00	27	9	7.60
Claremont	2.40	1.50	27	3	8.49
Albion, St. Ann	4.07	1.50	27	9	8.19
Averham Park	3.77	1.25	27	6	10.41
Mean	2.89	...	...	...	...

NORTHERN DIVISION.	Greatest fall in 24 hours.				
	Total fall	Amount.	Date	Days on which 0.01 or more fell.	Average.
	In.	In.			
Port Maria	5.12	1.23	29	12	8.06
Ocho Rios	5.22	2.00	6	5	5.74
Bogue, Ocho Rios	4.87	1.20	28	9	...
Rockfield	5.03	1.25	28	11	...
Drax Hall	4.95	1.20	29	11	8.47
Liberty Hill	5.77	1.70	28	7	...
St. Ann's Bay	4.83	1.25	29	15	7.07
Seville	4.40	1.26	30	10	7.77
Richmond Estate	4.50	1.05	29	11	...
Llandoverly	3.85	0.85	27	8	8.17
Runaway Bay	3.66	1.32	15	8	...
Brown's Town	2.10	0.85	10	5	8.85
Alexandria	1.64	0.66	27	3	...
Chewmagna, St. Ann	1.70	0.40	10	7	3.38
Home Castle	3.80	1.25	28	11	7.63
Richmond Pen	1.60	1.10	15	2	...
Mahogany Hall	1.70	0.54	27	10	6.74
Barnstaple	2.21	0.95	28	6	...
Brampton Bryan	...	...	...	...	...
Bryan Castle	3.80	1.80	27	5	6.54
Braco	2.35	0.80	15	7	5.80
Arcadia	4.90	2.40	28	4	6.78
Lancaster	3.11	2.35	28	6	6.54
Harmony Hall	3.29	1.37	28	6	6.13
Vale Royal	2.72	1.60	27	3	7.88
Colchis Pen	0.86	0.30	27	6	4.47
Swanswick	2.59	1.00	28	6	...
Georgia	3.53	1.50	27	9	...
Long Pond	2.63	0.87	27	7	...
Duncans	2.00	1.12	27	3	...
Hyde Hall	2.54	1.15	27	7	...
Steelfield	3.01	1.23	15	4	...
Etingdon	...	...	...	...	...
Lottery	2.80	1.35	15	5	5.54
Falmouth	2.82	1.21	15	7	5.17
Florence Hall	...	...	15	...	...
Good Hope	2.55	1.95	15	2	...
Unity	1.24	0.80	15	3	...
Kent	2.14	1.08	15	6	...
Canaan	2.37	1.05	15	7	5.03
Content	1.86	0.76	27	4	...
Bellfield	...	...	...	...	...
Gulibro	2.00	0.86	15	14	4.40
Glasgow	2.35	1.30	15	3	...
Moor Park	1.60	1.00	14	4	5.95
Rose Hall	2.15	1.05	27	3	5.04
Running Gut	1.43	0.63	27	4	5.49
Cinnamon Hill	1.96	1.00	27	3	5.16
Success	1.10	0.85	27	2	4.01
Montego Bay	1.39	0.70	15	5	4.75
Catherine Hall	1.04	1.04	15	1	...
Retirement	1.27	0.72	15	4	...
King Gate	1.20	0.33	15	5	3.74
Blue Hole	1.20	0.75	16	3	...
Haughton Court	3.40	2.30	15	4	3.67
Lucea	2.70	1.60	15	2	3.95
Green Island	1.80	1.70	15	2	...
CENTRAL SUB-DIVISION.					
Rio Magno	0.23	0.15	10	2	...
Headworks, Rio Cobre	0.18	0.18	6	1	2.05
Linstead	0.50	0.50	11	1	3.70
Berkshire Hall	1.24	0.40	27	7	4.36
Point Hill	0.40	0.40	5	1	5.92
Marlie Hill	0.28	0.28	28	1	...
Worthy Park	0.32	0.20	9	2	2.68
Croft Hill	0.12	0.12	9	1	...
Chapelton	0.21	0.16	6	2	2.47
Danks Works	0.00	...	...	...	2.57
Savoy House	0.03	0.03	7	1	2.81
Crooked River	0.00	...	...	...	...
Trout Hall	0.18	0.18	9	1	...
Frankfield	...	...	...	...	...
Cave Valley	...	...	...	...	...
Mean	2.38	...	...	...	...

WEST-CENTRAL DIVISION.	DEC., 1916.					SOUTHERN DIVISION.	DEC., 1916.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.			In.	
Whitney	...	...	...	...	...	Morant Point L. H.	1.59	0.46	27	13	6.41
Mocho, Clarendon	...	...	...	...	...	Elliott Hill	2.58	0.97	28	20	...
Spaldings	0.52	0.20	7	9	...	Pleasant Hill	2.14	1.00	27	9	...
Baillieston	...	...	...	...	...	East Prospect	1.37	0.26	14	11	5.76
Brokenhurst	...	...	...	...	...	Morant Bay	0.46	0.20	20	4	4.52
Christiana	0.66	0.24	7	4	3.68	Easington	0.25	0.25	27	1	3.31
Chudleigh	0.54	0.20	6	8	3.18	Bull Bay	0.00	0.00	...	...	1.75
Shooter's Hill	0.11	0.07	7	2	...	Gordon Town	0.00	...	...	...	3.37
Spitzbergen	...	...	...	...	...	Hope Gardens	0.16	...	...	...	...
Kental, Manchester	0.00	0.00	...	...	2.92	King's House Gardens	0.00	...	...	...	...
Marshall's Pen	0.00	...	...	...	3.66	Melrose	0.00	0.00	...	...	...
Mandeville	0.23	0.15	15	3	3.62	Halfway Tree	0.00	0.00	...	...	2.12
Carlton, Mandeville	0.16	0.11	16	3	3.62	Lunatic Asylum	0.08	0.05	28	2	2.03
The Hill	0.84	0.84	18	1	...	Glenmore Road	0.00	0.06	29	4	...
Fairfield, Manchester	0.45	0.19	6	5	2.94	Kingston P. W. Office	0.02	0.01	15	2	1.78
Mile Gully	0.04	0.04	4	1	...	Plumb Point L. H.	0.00	0.00	...	...	1.60
Ulster Spring	2.00	0.75	15	4	4.26	Ferry	0.00	0.00	...	...	...
Freeman's Hall	0.85	0.60	9	2	...	Clifton Pen	...	...	...	...	...
Albert Town	0.00	0.00	...	...	...	Quarantine Station	0.20	0.20	29	1	...
Lowe River	0.00	0.00	...	...	4.00	Spanish Town	0.05	0.05	29	1	2.08
Troy	0.00	0.00	...	...	3.58	Hog Hole, St. Catherine	0.48	0.48	6	1	2.83
Windsor Pen, Trel.	0.86	0.36	15	6	4.51	Hartlands	0.10	0.10	8	1	2.23
Medina	0.00	0.00	...	...	...	Belmont, Gnanaboa Vale	0.50	0.26	28	2	...
Wallingford	...	...	...	...	...	Old Harbour	0.46	0.46	6	1	2.71
Balaclava Police Station	0.00	0.00	...	...	2.42	May Pen	0.15	0.15	28	1	2.40
Siloah	0.00	0.00	...	...	3.57	Hillside	...	...	...	...	...
Appleton Estate	...	...	...	...	...	Moreland	...	...	...	...	...
Maggotty	1.50	1.35	15	2	2.98	Money Musk	...	...	...	...	...
Butlers	0.42	0.42	14	1	...	Dunkley's, Vere	0.05	0.03	14	2	1.91
Dromilly Pen	...	...	...	...	...	Dry River	0.05	...	...	...	...
Spring Vale	1.50	0.85	15	6	6.27	Denbigh	0.00	0.00	...	...	2.12
Garland	...	...	...	...	...	Toll Gate	0.66	0.45	28	2	...
Mocho, Catadupa	...	...	...	...	...	Woodleigh	0.00	0.00	...	...	...
Springfield, St. Elizabeth	0.88	0.75	15	3	...	New Yarmouth	0.00	0.00	...	...	1.97
Chesterfield, St. James	...	...	...	...	...	Exeter, Vere	...	...	...	...	...
Catadupa Ry. Station	0.09	0.06	15	2	...	Rhymesbury	...	...	...	...	...
Kempshot	0.65	0.22	1	6	5.40	Milk River	...	...	...	...	...
Cambridge, St. James	0.00	0.00	...	...	...	Clarendon Pk. Ry. St.	0.13	0.12	28	2	...
Ducketts	...	...	...	...	...	Victoria Town	0.20	0.20	6	1	3.03
New Market, Police St.	0.99	0.40	15	4	...	Hog Hole, S. Manch.	0.40	0.40	28	1	...
The Bog, New Market	1.39	0.55	15	4	...	Stone's Hope	0.20	0.20	28	1	2.85
Kew Park	0.15	0.13	15	2	2.67	Newport, Manchester	0.18	0.10	16	3	4.11
Montpelier	0.69	0.29	10	4	...	Great Valley, Man.	0.26	0.15	28	3	2.77
Knockalva	0.59	0.46	15	2	...	Alligator Pond	0.00	0.00	...	...	2.70
Ramble	...	...	...	...	...	Southfield, St. Elizabeth	1.03	0.49	16	4	...
Petersville	1.38	0.64	15	5	2.72	Lititz	0.16	0.16	16	1	...
Darliston	0.47	0.37	15	2	3.47	Torrington	1.67	1.05	3	6	2.72
Bluefields	...	...	...	...	...	Bethlehem, St. Eliz.	0.69	0.35	7	4	2.44
Whithorn	0.21	0.21	15	3	2.94	Santa Cruz	1.33	1.33	6	1	2.77
Water Works Pen	0.57	0.40	18	2	...	Pedro Plains Police St.	1.11	0.86	6	4	1.28
Great Valley, Han.	...	...	...	...	...	Mountainside	0.63	0.45	6	3	...
Prospect Park	...	...	...	...	...	Black River	0.19	0.17	6	2	2.27
Blackheath	...	...	...	...	...	Font Hill	1.55	0.59	6	5	2.08
Fontabelle, Westm.	...	...	...	...	...	Mount Edgecombe	1.61	0.71	15	4	2.44
Belleisle	...	...	...	...	...	Sweet River	1.05	0.90	15	2	2.46
Morgan's Bridge	0.70	0.70	15	1	3.28	Windsor, Sav.-la-mar	0.66	0.43	16	2	2.48
King's Vale Police St.	1.16	1.00	15	3	3.33	Orchard	0.49	0.34	15	2	...
						Sav.-la-mar	0.89	0.75	15	2	2.66
						Meylersfield	...	...	...	...	...
Mean	0.60	...	...	...	...	Little London	0.81	0.77	14	2	...
						Retreat	0.89	0.84	15	2	2.41
						Negril Point L.H.	1.22	0.92	15	3	2.12
						Mean	0.51	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	DECEMBER.	
	1916.	Average.
	In.	In.
North-Eastern Division	2.89	10.28
Northern	2.38	5.45
West-Central	0.60	3.60
Southern	0.51	2.61
The Island	1.60	5.48

The greatest fall was 8 inches at Moore Town, and no rain fell at many places; indeed the rainfall was remarkably small, following the heavy rains of the preceding months.

SHOCKS OF EARTHQUAKE IN DEC., 1916.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
17	hr. min. 10 20 a.m.	II	Mt. Holstein; N & S .013; double shock, with sound.
		I	Kingston, NNW & SSE .008,
		I	Melrose, Halfway Tree, SE.
			duration, 5 sec.
24	12 30 p.m.	I	Kingston, NW & SE, .004, duration 1 sec.

For the first shock, B₃ was due 16.6; P, 18.4; and B 17.0.
The second shock came from H due 23.7.

THE ISLAND RAINFALL, 1916.

Month.	N.E.	N.	W.C.	S.	The Island.
	In.	In.	In.	In.	In.
Jan.	6.97	5.08	1.06	0.92	3.51
Feb.	10.36	5.18	3.14	2.70	5.34
Mar.	3.43	1.96	3.66	1.86	2.73
Apr.	7.81	7.56	11.48	5.87	8.18
May	17.59	11.43	19.87	13.32	15.55
June	7.80	4.37	9.01	4.13	6.33
July	10.62	4.88	7.88	6.86	7.56
Aug.	19.10	7.57	16.67	12.01	13.84
Sept.	8.55	6.15	10.77	5.03	7.62
Oct.	22.50	13.31	14.52	14.71	16.26
Nov.	31.18	15.51	11.79	12.72	17.80
Dec.	2.89	2.38	0.60	0.51	1.60
Totals	148.80	85.38	110.45	80.64	106.32

The Island rainfall last year was 104.95, and it is remarkable that for two consecutive years the rainfall should be so much above the average,—due no doubt to cyclonic conditions.

MAGNETIC VARIATION.

Kempshot.	Decl. E.
1912	2° 28'
1913	2° 30'
1914	2° 31'
1915	2° 36'
1916	2° 35'

MAXWELL HALL,

Government Meteorologist.

Montego Bay P.O.

KINGSTON, JAMAICA. Mean results for the year 1916. Elevation, 24 feet.

Month.	Bar Pressure.		Temperature.						Extremes for the Month.			Dewpoint and humidity.			Rain-fall.	Miles of Wind per diem.
	7 a.m.	3 p.m.	Mean.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Min.	Range.	7 a.m.	3 p.m.			
January	ins.	ins.	°	°	°	°	°	°	°	°	°	°	°	ins.	149.1	
February	30.009	29.959	75.8	68.7	83.1	85.9	67.4	18.5	87.9	64.1	23.8	63.9	85	67.4	59	0.09
March	29.980	29.937	74.9	69.1	80.6	84.6	67.6	17.0	89.2	63.2	26.0	64.3	85	67.5	65	0.57
April	29.975	29.930	76.3	70.1	82.9	86.1	68.3	17.8	88.7	65.4	23.3	64.3	82	66.2	57	0.79
May	29.946	29.903	78.2	74.1	82.8	86.7	71.2	15.5	90.3	68.1	22.2	68.6	83	69.8	65	2.99
June	29.917	29.874	78.8	75.8	82.8	86.5	72.4	14.1	91.2	70.1	21.1	71.2	86	72.3	71	11.92
July	29.909	29.882	80.4	77.0	83.9	89.4	73.5	15.9	94.1	71.3	22.8	70.5	80	72.6	69	1.53
August	29.909	29.897	79.9	76.6	83.7	88.1	73.1	15.0	92.5	69.3	23.2	71.0	83	73.6	72	3.94
September	29.921	29.890	80.0	76.0	83.8	88.6	73.5	15.1	92.7	70.2	22.5	71.6	86	73.3	71	5.92
October	29.892	29.856	80.2	75.8	84.4	89.6	73.1	16.5	92.3	70.0	22.3	71.7	87	73.5	70	0.97
November	29.820	29.774	78.6	74.5	82.4	86.5	73.1	13.4	91.0	70.6	20.4	72.3	93	74.4	77	8.17
December	29.869	29.822	76.6	72.7	80.2	84.1	71.5	12.6	88.5	65.8	22.7	70.6	93	72.8	79	11.27
	29.970	29.913	74.7	67.9	81.8	84.6	66.5	18.1	88.0	61.8	26.2	64.0	87	66.8	61	0.02
Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	48.18
Means	29.926	29.886	77.9	73.2	82.7	86.7	70.9	15.8	90.5	67.5	23.0	68.7	86	70.8	68	...
																172.3

KINGSTON, JAMAICA. Mean results for the year 1916. Elevation 24 feet.

Month.	Wind from and miles per hour.			Clouds in tenths.				Weather Conditions.			
	7 a.m.		11 p.m.	Lower.		Middle.			Upper.		
	mks.	3 p.m.		7 a.m.	3 p.m.	7 a.m.	3 p.m.				
January	N	4.5 SE by S	10.1 N by W	4.6 mks.	0.4	1.7	0.6	2.2	1.4	0.8	Fine. Northers on 9th, 10th and 18th.
February	N by E	5.7 SE by S	10.6 N by E	5.6 mks.	2.7	4.3	2.1	1.9	0.7	0.3	Fine. Squally on 18th, distant lightning on 21st, Norther on 26th
March	N	5.5 SE by S	13.5 NNE	6.0 mks.	1.0	3.1	1.3	1.7	1.6	1.0	Fine. Norther on 17th, 18th and 31st.
April	NNE	4.8 SE	12.4 NE by N	4.4 mks.	2.6	4.8	1.2	1.9	1.8	1.2	Fine on two days. Rainfall about three times the average. Humidity somewhat above the mean.
May	ENE	5.6 SE	12.0 NE	4.9 mks.	2.3	4.2	0.9	1.4	1.9	2.3	Rainfall about 2½ times the average, lightning on 2nd, 12th, 14th 15th and 20th. Norther on 3rd.
June	NNE	6.1 SE	14.6 NNE	5.7 mks.	1.0	4.0	0.5	1.1	3.8	2.5	Rainfall deficient. Thunderstorm on 5th, 6th 9th, 14th, 19th and 20th, and from 23rd to 29th. Squally on 11th, 28th and 29th
July	NE by E	5.8 SE by S	12.8 ENE	5.9 mks.	1.4	3.3	1.5	1.3	1.9	2.4	Rainfall over double the average. Thunderstorm 2nd, 7th, 12th, 16th 21st, 23rd, 25th and 27th. Squally on 6 days.
August	E by N	6.6 SE	14.5 NE by E	6.4 mks.	1.7	3.6	0.5	1.7	3.7	2.6	Fine on seven days. Thunderstorms on 6th, 7th, 8th, 20th, 21st, 23rd, squally on 1st, 9th, 20th, 25th, 26th and 31st. Wind 40 miles per hour on 26th, and 36 miles per hour on 31st. Hurricane along southern coast on 15th and 16th. Passing disturbance to NE and N on 30th. Rainfall about 50 per cent. above the average humidity, also above the mean.
September	N by E	4.1 SE	8.2 N by E	4.6 mks.	0.7	3.4	0.5	2.0	2.9	2.5	Fine on six days. Thunderstorms on 10 days; squally on 5th and 7th. Rainfall less than one-fourth the average. Humidity above the mean.
October	N by E	5.0 SE	7.2 NE	5.3 mks.	3.2	4.8	0.8	1.5	2.6	1.9	Fine on two days. Thunderstorms on 9 days. Squally on 1st and 29th. Rainfall the average. Humidity somewhat above the mean.
November	ENE	6.2 SE	10.6 NE by E	6.3 mks.	2.6	4.5	1.8	2.0	1.5	1.6	Frequent rain first half of month and the rainfall was nearly four times the average, therefore affecting considerably the percentage of humidity. Distant thunderstorm on 1st, 5th, 6th, 7th, 8th, 21st and 23rd. Frequent south-east rain squalls on 12th and 13th owing to disturbance to far west of Jamaica.
December	NNE	5.8 SE	9.8 N by E	5.5 mks.	1.8	0.9	0.5	2.2	1.1	0.5	Very dry. Gentle Norther 20th and 31st. Fine generally. Total rainfall for the year 48.18 inches. The December mean minimum temperature was 66.5 degrees and represents the lowest for the past ten years.
Means	NNE	5.5 SE	11.4 NE by N	5.4 mks.	1.8	3.6	1.0	1.7	2.1	1.6	Rainfall about one-third more than the average, and total number of rainy days, 112. Mean temperature about one degree below the average.

Table of correlations of Weather elements and Sunshine recorded at BAVINTON, STONY HILL, 1916.

ELEVATION, 1355 Feet.	AIR TEMPERATURE.							HUMIDITY.			RAINFALL		RADIATION.				EARTH TEMP.			
	Mean.	Daily Maximum.	Daily Minimum.	Range.	Highest.	Lowest.	Extreme Range.	Mean.	7 a.m.	3 p.m.	Inches.	Per... Ct.	Cloud—in tenths of the sky.	Sunshine—hours and tenths.	Solar maximum.	Grass minimum.	1 Foot below surface.	4 Feet below surface.	Thunder—No. of days.	Wet Mist—No. of days.
1916—								%	%	%		%								
January	71.5	79.9	64.3	15.6	82.0	58.5	23.5	76	88	63	1.51	62	5.0	7.2	60	7	..	..	3	4
February	69.7	77.9	63.2	14.7	81.5	57.5	24.0	80	88	72	6.40	264	6.4	5.3	60	1	..	..	3	9
March	70.8	79.8	63.3	16.5	84.0	60.5	23.5	77	88	65	2.24	84	5.4	6.1	59	0	..	..	2	14
April	72.5	80.5	66.2	14.3	84.0	62.5	21.5	82	90	74	8.24	167	7.0	4.5	63	2	..	..	7	18
May	73.4	80.4	68.0	12.4	85.0	65.0	20.0	86	92	70	19.05	189	6.8	4.8	65	5	..	..	8	16
June	74.9	83.6	68.1	15.5	90.0	66.0	24.0	84	90	77	9.51	129	6.2	5.7	65	4	..	..	20	19
July	74.7	82.6	68.2	14.4	87.0	65.5	21.5	83	87	78	9.65	174	6.5	5.7	139	7	65.3	78.9	19	14
August	75.5	83.8	69.0	14.8	88.0	66.0	22.0	80	86	73	16.81	237	5.9	6.3	147	7	66.2	79.2	17	12
September	74.6	82.2	68.6	13.6	86.0	66.5	19.5	84	88	80	12.02	130	5.8	6.2	146	9	65.6	78.7	16	19
October	73.5	79.8	68.6	11.2	84.0	65.5	18.5	88	93	82	15.03	96	7.3	4.2	139	6	66.2	77.3	15	18
November	72.2	78.1	67.9	10.5	82.0	64.0	18.0	89	93	84	18.56	294	7.6	3.9	137	3	65.7	75.9	13	15
December	70.6	79.6	62.9	16.7	82.0	59.5	22.5	76	88	64	0.53	12	5.3	6.6	143	9	57.2	72.9	0	14
Totals	..	..	..	..	..	..	..	..	..	..	119.55	153	..	..	..	..	..	..	123	172
Means	72.8	80.7	66.5	14.2	84.6	63.1	21.5	82	89	74	..	..	6.3	5.5	142.5	63.3	77.2	77.2		

The air thermometers are exposed in a Stevenson screen: their readings have been corrected for instrumental errors.
The mean daily temperature in the second column has been deduced from the 7 a.m.-3 p.m.-Maximum and Minimum readings according to the Rule in the "Meteorology of Jamaica" by Maxwell Hall, M.A., p. 14.
The rainfall in column thirteen is expressed as percentage of recorded averages for Stony Hill for 16 years. See W. R. No 366.
The cloud averages are mean of 7 a.m. and 3 p.m. observations.
The sunshine is registered by a Jordan Photographic Recorder.
The Solar maximum temperature is measured by a black bulb thermometer in vacuo.
"Wet Mist" in the last column is wet mist observed at 7 a.m. in the Wag-water valley.
The lowest minimum temperature on the grass was 54° F on Feb. 28th and Dec. 20th.
The highest Solar maximum was 158° F on Aug. 20th.
The earth thermometers are suspended in iron tubes sunk into the earth under short grass.

PARTICULARS OF DURATION OF SUNSHINE RECORDED AT BAVINTON, STONY HILL

Averages in hours and tenths of an hour.

MONTH.	6	7	8	9	10	11	12	1	2	3	4	5	6	Total.	Per cent. of possible Sunshine.
	to	to	to	to	to	to	to	to	to	to	to	to	to		
	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	noon	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.		
1916.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	
January	0.2	0.9	0.9	0.9	0.7	0.6	0.6	0.6	0.7	0.7	0.4	..	..	7.2	64
February	0.2	0.6	0.8	0.8	0.6	0.4	0.4	0.4	0.4	0.4	0.3	..	..	5.3	46
March	0.4	0.8	0.8	0.8	0.6	0.4	0.3	0.5	0.5	0.5	0.4	0.1	..	6.1	51
April	0.4	0.7	0.7	0.6	0.4	0.3	0.3	0.2	0.3	0.3	0.2	0.1	..	4.5	36
May	0.4	0.7	0.7	0.6	0.4	0.3	0.4	0.4	0.3	0.2	0.3	0.1	..	4.8	37
June	0.5	0.8	0.9	0.8	0.6	0.5	0.3	0.3	0.3	0.2	0.3	0.2	..	5.7	44
July	0.5	0.7	0.8	0.8	0.5	0.4	0.3	0.3	0.3	0.4	0.4	0.3	..	5.7	44
August	0.4	0.7	0.8	0.7	0.7	0.6	0.5	0.5	0.5	0.4	0.3	0.2	..	6.3	50
September	0.4	0.9	0.9	0.9	0.7	0.4	0.4	0.3	0.4	0.4	0.3	0.2	..	6.2	51
October	0.2	0.6	0.7	0.7	0.5	0.3	0.3	0.3	0.3	0.2	0.1	..	..	4.2	36
November	0.1	0.4	0.6	0.6	0.4	0.4	0.3	0.3	0.3	0.3	0.2	..	..	3.9	34
December	0.1	0.7	0.9	0.9	0.8	0.6	0.4	0.6	0.5	0.7	0.4	6.6	60
Means	0.32	0.71	0.79	0.76	0.58	0.43	0.37	0.39	0.40	0.39	0.30	0.10	..	5.54	46

551.05
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No. 466. APR 18 1917



JAMAICA

W E A T H E R R E P O R T

FOR THE MONTH OF
JANUARY, 1917.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky ; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House	8	30.048	30.004	75.8	79.2	80.6	72.8	7.8	83.5	11	60.0	10	23.5
Kingston	24	30.023	29.974	67.0	81.1	84.5	65.9	18.6	89.9	14	63.3	15	26.6
Negril Point Light House	33	30.031	29.977	68.9	81.6	84.5	66.2	18.3	87.1	20	60.8	20	26.3
Castleton Gardens	496	..	..	64.9	81.1	83.4	65.2	18.2	87	14	56	9	31
Hope Gardens†	668	30.041	..	65.9	83.3	86	64.6	22.0	89	14*	62	7*	27
Bavinton, Stony Hill**	1,355	..	..	64.4	76.7	79.1	62.9	16.2	82.0	9*	59.5	9	22.5
Stony Hill Indus. School	1,400	..	..	64.9	76.3	78.6	63.1	15.5	82	10*	60	22	22
Hill Gardens	4,900	25.318	25.275	57.8	61.4	65	52	13	69	24	49	9*	20

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
	ft.	°		°		in	miles		m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	8	68.1	77	67.7	68	2.78	..	NE	16	NE	14	4.0	0.4	0.3	2.5	1.0	0.2
Kingston ..	24	62.7	86	67.5	63	0.26	152	N	5.0	SE	11.2	1.1	2.0	0.4	1.8	2.1	0.3
Negril Point Light House† ..	33	63.9	84	67.9	64	1.09	203	NE	8.0	WSW	10.4	1.5	0.4	1.1	1.3	5.0	0.3
Castleton Gardens ..	496	62.2	90	66.8	62	6.63	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	60.5	84	65.9	57	1.20	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill ..	1,355	60.3	87	62.4	62	1.28	..	N	1.2	NNE	4.2	2.5	1.4	1.0	3.4	3.0	0.3
Stony Hill Indus. School ..	1,400	60.4	85	62.3	62	1.31	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	52.9	84	53.7	86	3.87	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
‡ Negril Point Light House. Wind 11 p.m. N.E. 8.1
** Bavinton, Stony Hill. Mean Min. temp on grass 57.3
Earth temp. 1 ft. below surface 71.6
" 4 ft " " 73.3

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	JAN., 1917.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount	Date.		
	In.	In.			In.
Mauchioneal	4.72	1.50	25	12	...
Spring Valley, Portland	7.71	3.33	25	16	...
Bath	7.44	1.64	24	16	6.26
Priestman's River	5.88	1.90	25	11	...
Moore Town	17.22	5.47	25	15	18.55
Port Antonio	6.76	1.42	25	13	19.10
Fellowship	10.40	3.07	25	18	14.16
Johnson River Bridge	2.80	0.80	13	12	3.59
Shrewsbury	11.78	2.05	17	17	20.13
Cedar Valley, St. Thos.	1.80	0.80	13	4	4.46
Hope Bay	6.90	1.05	18	18	...
Moy Hall, St. Thos.	...	...	...	...	...
Brooklodge	1.30	0.37	13	6	...
Lennox	7.90	1.10	17	19	...
Farm Hill	5.05	2.20	2	4	6.79
Hill Gardens	3.87	1.50	2	11	7.09
Buff Bay	6.93	1.45	16	8	10.22
Vinery	8.67	1.80	18	13	14.26
Windsor Castle, Port.	3.60	0.30	2	4	...
Greenvale, Portland	13.06	3.10	17	20	18.94
Mt. Holstein	7.84	2.21	17	21	14.03
Irish Town	1.68	1.68	26	1	2.49
Rose Hill	3.76	0.95	31	7	...
Hardware Gap	5.00	...	...	...	4.95
Stony Hill Ind. School	1.31	0.30	11	9	3.30
Castleton Gardens	6.66	2.38	31	4	8.87
Lawrence Tavern	0.84	0.50	17	4	1.95
Cedar Valley, Red Hills	2.79	1.30	26	4	...
Zion Hill	1.48	0.75	18	6	...
Agualta Vale	5.86	1.40	16	11	7.18
Water Valley	7.79	1.75	16	17	9.14
Albany, Ry. Station	...	...	...	...	...
Platfield	...	...	...	...	...
Richmond, St. Mary	6.89	1.80	17	13	6.18
Highgate	8.98	2.20	15	11	...
Hampstead, St. Mary	12.02	1.35	17	26	10.30
Guy's Hill	8.44	2.65	17	8	...
Lucky Hill	10.48	2.10	16	14	...
Rio Hoe	6.67	1.93	16	11	5.47
Unity Valley	5.69	2.58	17	13	4.69
Moncague	9.56	3.22	18	11	4.18
Claremont	6.20	1.75	16	10	6.12
Albion, St. Ann	6.45	1.74	16	14	5.15
Averham Park	5.17	1.75	16	9	6.88
Mean	6.84	...	...	...	...

NORTHERN DIVISION.	JAN., 1917.				
	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date		
	In	In.			
Port Maria	3.74	0.71	16	12	6.72
Ocho Rios	2.92	1.00	15	7	5.42
Bogue, Ocho Rios	2.92	0.60	18	14	...
Rockfield	4.56	1.25	16	12	...
Drax Hall	3.25	0.80	24	11	4.84
Liberty Hill	2.51	0.80	17	9	7.23
St. Ann's Bay	2.60	0.69	16	15	5.01
Seville	2.94	0.90	17	9	5.61
Richmond Estate	...	...	...	...	...
Llandovery	2.27	0.80	16	6	6.62
Runaway Bay	1.23	0.23	16	9	...
Brown's Town	4.26	1.58	16	7	5.41
Alexandria	1.99	1.05	16	4	...
Chewmagna, St. Ann	2.35	0.85	25	6	2.70
Home Castle	3.55	1.15	16	9	5.39
Richmond Pen	...	...	...	...	...
Mahogany Hall	2.80	1.18	16	7	4.76
Barnstaple	1.69	0.80	16	3	...
Brampton Bryan	...	...	...	...	...
Bryan Castle	4.00	1.80	16	6	4.66
Braco	2.05	1.30	10	5	4.17
Arcadia	5.30	2.70	16	4	4.38
Lancaster	2.85	1.00	16	7	4.59
Harmony Hall	2.16	0.73	17	7	3.97
Vale Royal	5.69	2.15	16	5	4.94
Colchis Pen	1.32	0.65	17	6	3.29
Swanswick	3.60	1.15	18	8	...
Georgia	4.30	2.15	16	6	...
Long Pond	4.36	1.71	16	7	...
Duncans	...	...	...	...	...
Hyde Hall	5.00	1.80	16	7	...
Steelfield	4.61	1.91	16	6	...
Etingdon	...	...	...	...	...
Lottery	3.40	1.40	16	6	3.78
Falmouth	2.82	0.97	17	9	3.60
Florence Hall	...	...	...	...	...
Good Hope	2.05	1.25	16	3	...
Unity	1.84	0.80	16	4	...
Kent	1.91	1.15	17	5	...
Canaan	4.08	1.62	16	8	3.08
Content	1.50	0.64	17	4	...
Bellfield	...	...	...	...	...
Gulibro	3.40	1.20	16	12	3.15
Glasgow	1.90	1.10	16	2	...
Moor Park	2.03	1.00	17	4	4.19
Rose Hall	...	...	...	...	...
Running Gut	...	...	...	...	...
Cinnamon Hill	...	...	...	...	...
Success	...	...	...	...	...
Montego Bay	0.89	0.45	16	4	2.92
Catherine Hall	...	...	...	...	...
Retirement	2.12	1.13	16	6	...
King Gate	1.09	0.54	16	4	3.94
Blue Hole	1.95	0.90	25	4	...
Haughton Court	0.90	0.30	3	4	2.34
Lucea	1.14	0.63	25	5	3.07
Green Island	0.60	3.30	31	3	...
CENTRAL SUB-DIVISION.					
Rio Magno	8.68	2.50	17	6	...
Headworks, Rio Cobre	0.71	0.71	11	1	1.84
Linstead	1.65	0.70	17	4	2.15
Berkshire Hall	4.28	1.13	17	11	2.96
Point Hill	2.19	0.75	19	5	2.74
Marlie Hill	...	...	...	...	...
Worthy Park	2.14	1.55	17	3	...
Croft Hill	1.69	0.93	17	7	...
Chapelton	1.27	0.56	17	4	2.24
Danks Works	1.12	0.66	17	5	1.89
Savoy House	1.03	0.63	17	6	2.29
Crooked River	2.00	1.00	24	4	...
Trout Hall	2.02	0.60	17	6	...
Frankfield	...	...	...	...	...
Cave Valley	...	...	...	...	...
Mean	2.60	...	...	...	...

WEST-CENTRAL DIVISION.		JAN., 1917.					SOUTHERN DIVISION.		JAN., 1917.				
		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.			Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
			Amount.	Date.						Amount.	Date.		
		In.	In.			In.			In.	In.			In.
Whitney	...	1.35	0.60	12	2	2.51	Morant Point L. H.	...	2.78	0.97	13	14	4.30
Mocho, Clarendon	...	0.70	0.60	11	2	2.30	Elliott Hill	...	5.33	1.20	14	18	...
Spaldings	...	2.31	0.86	17	13	...	Pleasant Hill	...	4.54	1.19	13	13	...
Baillieston	...	...	...	...	...	...	East Prospect	...	3.53	1.05	13	12	3.56
Brokenhurst	...	0.70	0.40	18	2	3.12	Morant Bay	...	2.27	0.50	13	10	2.70
Christiana	...	1.78	0.65	17	9	2.35	Easington	...	1.16	0.40	18	6	1.64
Chudleigh	...	1.82	0.71	17	9	2.47	Bull Bay	...	0.00	0.00	...	...	0.87
Shooter's Hill	...	0.77	0.25	28	6	...	Gordon Town	...	0.00	...	...	...	2.08
Spitzbergen	...	...	...	...	...	...	Hope Gardens	...	1.20	...	...	...	1.77
Kendal, Manchester	...	...	...	...	...	...	King's House Gardens	...	1.27	1.27	26	1	1.22
Marshall's Pen	...	1.52	0.36	28	6	2.87	Melrose	...	0.95	0.89	26	2	...
Mandeville	...	...	...	...	...	...	Halfway Tree	...	1.40	1.15	26	3	1.12
Carlton, Mandeville	...	1.86	0.56	10	18	...	Lunatic Asylum	...	0.50	0.39	26	3	0.72
The Hill	...	1.03	0.20	18	7	...	Glenmore Road	...	0.83	0.64	26	5	...
Fairfield, Manchester	...	1.06	0.31	26	9	2.61	Kingston P. W. Office	...	0.26	0.20	26	3	1.02
Greenvale	...	0.56	0.15	17	5	...	Plumb Point L. H.	...	0.90	0.50	26	9	0.80
Ulster Spring	...	2.72	1.22	15	4	3.06	Ferry	...	...	...	...	...	...
Freeman's Hall	...	1.75	0.70	17	5	...	Clifton Pen	...	0.10	0.10	26	1	...
Albert Town	...	0.84	0.50	9	3	...	Quarantine Station	...	0.10	0.07	15	2	...
Lowe River	...	1.80	1.00	15	2	2.92	Spanish Town	...	0.31	0.21	11	5	1.52
Troy	...	0.54	0.25	13	3	2.25	Hog Hole, St. Catherine...	...	0.36	0.20	12	4	1.71
Windsor Pen, Trel.	...	1.43	0.40	17	...	3.13	Hartlands	...	...	...	...	...	...
Medina	...	0.61	0.50	11	3	...	Belmont, Guanaboa Vale	...	...	...	...	...	...
Wallingford	...	...	...	...	...	...	Old Harbour	...	...	...	...	...	...
Balaclava Police Station	...	0.70	0.32	28	3	1.71	May Pen	...	0.50	0.20	18	3	1.26
Siloah	...	1.25	0.95	28	2	3.08	Hillside	...	...	...	...	...	...
Appleton Estate	...	...	...	...	...	...	Moreland	...	1.16	0.54	21	5	2.16
Maggotty	...	3.30	1.90	28	5	2.72	Money Musk	...	...	...	...	...	...
Butlers	...	1.17	0.40	17	6	...	Dunkley's, Vere	...	0.42	0.42	2	1	1.33
Dromilly Pen	...	...	...	...	...	...	Dry River "	...	0.73	0.42	20	5	...
Spring Vale	...	2.10	0.95	16	4	4.03	Denbigh	...	...	...	...	...	...
Garland	...	0.88	0.82	17	2	...	Toll Gate	...	1.33	0.40	18	5	...
Mochó, Catadupa	...	...	...	...	...	...	Woodleigh	...	...	...	...	...	...
Springfield, St. Elizabeth	...	1.91	0.80	12	8	...	New Yarmouth	...	0.56	0.26	20	3	1.20
Chesterfield, St. James	...	2.66	2.20	19	5	...	Exeter, Vere	...	0.45	0.10	12	6	1.64
Catadupa Rly. Station	...	1.31	0.38	13	8	2.69	Rhymesbury	...	...	...	...	...	...
Kempshot	...	2.26	1.21	16	6	3.98	Milk River	...	1.30	1.30	26	1	1.50
Cambridge, St. James	...	0.77	0.56	24	4	...	Clarendon Pk. Ry. St.	...	7.04	1.60	12	5	...
Ducketts	...	1.80	0.69	24	5	...	Victoria Town	...	...	...	...	...	...
New Market, Police St.	...	1.67	0.40	13	9	...	Hog Hole, S. Manch.	...	1.84	0.50	26	6	...
The Bog, New Market	...	...	...	...	...	...	Stone's Hope	...	0.53	0.33	18	3	2.68
Kew Park	...	0.67	0.30	25	8	2.32	Newport, Manchester	...	...	...	...	...	...
Montpelier	...	0.94	0.63	16	3	...	Great Valley, Man.	...	0.40	0.17	18	5	2.49
Knockalva	...	1.92	1.12	25	7	...	Alligator Pond	...	...	...	...	...	...
Ramble	...	2.30	1.00	18	3	...	Southfield, St. Elizabeth	...	0.34	0.15	18	4	...
Petersville	...	3.32	2.07	25	10	2.25	Lititz	...	0.20	0.07	11	3	...
Darliston	...	2.79	1.16	12	10	2.93	Torrington	...	3.90	2.00	11	4	2.31
Bluefields	...	1.92	0.69	4	5	3.20	Bethlehem, St. Eliz.	...	2.45	0.82	11	7	2.52
Whithorn	...	2.03	1.02	25	6	1.97	Santa Cruz	...	0.74	0.27	12	4	2.83
Water Works Pen	...	1.41	0.50	17	6	...	Pedro Plains Police St.	...	0.00	0.00	...	...	...
Great Valley, Han.	...	2.48	0.98	25	4	4.68	Mountainside	...	2.31	0.73	26	5	...
Prospect Park	...	...	...	...	...	...	Black River	...	1.43	0.48	28	9	1.63
Blackheath	...	...	...	...	...	...	Font Hill	...	1.85	0.70	28	6	1.88
Fontabelle, Westm.	...	...	...	...	...	...	Mount Edgecombe	...	1.98	0.03	25	7	2.04
Belleisle	...	...	...	...	...	...	Sweet River	...	1.18	0.32	25	5	1.82
Morgan's Bridge	...	1.12	0.70	25	4	1.82	Windsor, Sav.-la-mar	...	0.70	0.35	17	4	1.83
King's Vale Police St.	...	2.28	1.46	25	5	3.26	Orchard	...	1.03	0.48	17	5	...
							Sav.-la-mar	...	0.93	0.41	25	6	1.62
							Meylersfield	...	...	...	...	...	...
							Little London	...	0.77	0.37	17	6	...
							Retreat	...	0.96	0.53	17	3	1.57
							Negril Point L.H.	...	1.09	0.74	25	7	1.34
Mean	...	1.72	...	...	...	...	Mean	...	1.16	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	JANUARY.	
	1917.	Average.
	In.	In.
North-Eastern Division	6.84	7.15
Northern	2.60	3.77
West-Central	1.72	2.85
Southern	1.16	1.81
The Island	3.58	3.90

The greatest fall 17.22 inches was at Moore Town, and no rain fell at Bull Bay and Gordon Town.

SHOCKS OF EARTHQUAKE IN JAN., 1917.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
	hr. min.		
No	earthquakes this month.		

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.



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SEP 11 1917

JAMAICA

WEATHER REPORT

FOR THE MONTH OF

FEBRUARY, 1917.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
		in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	ft. 8	30.078	30.044	75.7	78.8	80.6	72.7	7.9	82.0	9*	63.5	2	18.5
Kingston ..	24	30.085	30.013	67.2	81.4	84.9	66.2	18.7	87.8	20	63.5	24	24.3
Negril Point Light House ..	33	30.066	30.024	68.5	81.1	83.4	65.9	17.5	87.5	18	61.0	18	26.5
Castleton Gardens ..	496	..	..	62.9	78.7	83.8	69.0	14.8	88	1	62	11*	26
Hope Gardens† ..	668	30.086	29.978	66.0	81.6	84.8	63.6	21.2	89	17*	62	7*	27
Bavinton, Stony Hill** ..	1,355	..	..	63.6	74.4	78.2	62.0	16.2	81.5	22	59.0	5	22.5
Stony Hill Indus. School ..	1,400	..	..	64.1	75.0	77.7	62.1	15.6	83	22	59	5	24
Hill Gardens ..	4,900	25.332	25.299	57.9	61.4	64.4	51.6	12.8	70	17	50	2*	20

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		°		°				m.		m.		L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	ft. 8	68.4	78	67.3	68	1.32	..	NNE	14	NE	13	3.2	1.0	0.3	2.3	1.4	2.5
Kingston ..	24	62.3	84	67.0	62	0.16	173	N	6	SE	15	1.5	0.8	0.1	2.1	2.8	0.1
Negril Point Light House† ..	33	68.2	81	67.3	63	0.57	228	NE	8	Var.	13	1.5	1.9	0.0	0.7	4.8	0.0
Castleton Gardens ..	496	60.9	93	63.7	72	4.38	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	60.9	84	66.5	60	1.40	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill ..	1,355	60.1	89	63.7	69	5.29	..	N	2	N	5	2.5	1.1	0.4	5.3	2.4	0.2
Stony Hill Indus. School ..	1,400	60.5	88	63.0	66	5.03	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	52.2	80	56.1	84	3.22	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
‡ Negril Point Light House. Wind 11 p.m. E.N.E. 8.1
** Bavinton, Stony Hill. Mean Min. temp on grass 56.8
Earth temp 1 ft. below surface 71.3
" 4 ft. " " 72.6

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

	FEB., 1917.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount	Date.		
NORTH-EASTERN DIVISION.	In.	In.			In.
Manchioneal	1.62	0.46	12	8	...
Spring Valley, Portland	3.86	0.98	14	10	...
Bath	1.19	0.36	27	9	4.86
Priestman's River	1.09	0.39	14	5	...
Moore Town	8.93	2.42	2	19	...
Port Antonio	3.31	0.95	10	13	...
Fellowship	5.13	2.88	7	13	...
Johnson River Bridge	0.73	0.18	27	8	2.24
Shrewsbury	1.70	0.65	7	8	...
Cedar Valley, St. Thos.	0.77	0.42	9	4	2.76
Hope Bay	5.10	2.20	7	12	...
Moy Hall, St. Thos.	...	...	...	...	...
Brooklodge	0.35	0.15	3	4	...
Lennox	13.85	7.65	7	17	...
Farm Hill	2.45	1.25	16	3	3.25
Hill Gardens	3.22	...	...	...	...
Buff Bay	10.75	6.50	7	13	...
Vinery	15.52	7.20	7	10	...
Windor Castle, Port.	6.91	3.43	7	9	...
Greenvale, Portland	12.06	3.18	6	12	...
Mt. Holstein	8.93	2.42	2	19	7.46
Irish Town	0.15	0.15	9	1	1.44
Rose Hill	3.81	3.26	9	4	...
Hardware Gap	3.00	...	...	...	3.45
Stony Hill Ind. School	5.03	1.70	16	13	2.22
Castleton Gardens	4.38	1.20	28	11	4.95
Lawrence Tavern	3.60	0.90	16	6	2.36
Cedar Valley, Red Hills	6.01	1.62	18	9	...
Zion Hill	1.65	0.85	26	5	...
Agualta Vale	9.51	4.45	7	9	4.44
Water Valley	11.12	5.98	7	14	9.14
Albany, Ry. Station	...	...	...	...	...
Platfield	...	...	...	...	...
Richmond, St. Mary	4.45	1.71	6	10	6.18
Highgate	5.39	3.50	7	7	...
Hampstead, St. Mary	7.73	2.04	7	11	7.19
Guy's Hill	2.33	0.91	6	5	...
Lucky Hill	3.83	1.20	7	11	...
Rio Hoe	5.04	2.32	9	8	5.47
Unity Valley	2.89	0.56	9	12	4.69
Moneague	5.58	2.90	9	9	4.08
Claremont	4.20	2.20	9	6	6.12
Albion, St. Ann	5.66	3.56	9	8	3.59
Averham Park	4.97	2.65	9	9	4.50
Mean	4.56	...	...	...	...

FEB., 1917.

NORTHERN DIVISION.	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date		
	In.	In.			
Port Maria	5.18	3.20	7	12	5.95
Ocho Rios	6.05	3.45	7	6	3.85
Bogue, Ocho Rios	5.58	1.84	7	14	...
Rockfield	5.55	2.42	9	10	...
Drax Hall	6.80	2.00	7	10	4.47
Liberty Hill	6.87	2.47	9	9	3.88
St. Ann's Bay	7.26	3.18	9	16	4.88
Seville	5.37	1.85	9	9	4.29
Richmond Estate	...	...	...	...	...
Llandoverly	2.90	1.43	9	4	4.57
Runaway Bay	2.68	1.35	9	7	...
Brown's Town	3.20	1.65	9	8	4.74
Alexandria	2.70	1.71	9	4	...
Chewmagna, St. Ann	4.10	2.25	9	7	3.21
Home Castle	2.80	1.35	9	7	3.16
Richmond Pen	...	...	...	...	...
Mahogany Hall	2.46	1.25	9	7	...
Barnstaple	3.84	1.70	9	6	...
Brampton Bryan	...	...	...	...	...
Bryan Castle	2.60	0.90	6	4	2.32
Braco	2.30	1.60	6	4	2.27
Arcadia	...	...	...	...	...
Lancaster	2.60	0.80	6	5	2.51
Harmony Hall	2.27	0.85	6	8	2.33
Vale Royal	1.81	0.82	7	3	2.72
Colchis Pen	2.19	0.63	9	5	1.74
Swanswick	1.55	0.45	9	6	3.44
Georgia	1.80	0.80	7	6	2.56
Long Pond	1.11	0.35	7	6	2.74
Duncans	0.83	0.83	6	1	...
Hyde Hall	1.50	0.55	7	6	2.75
Steelfield	1.74	0.73	7	3	2.31
Etingdon	...	...	...	...	...
Lottery	1.40	0.60	8	6	2.01
Falmouth	1.31	0.42	6	6	1.81
Florence Hall	...	...	...	...	...
Good Hope	4.07	1.50	11	5	...
Unity	4.34	1.27	9	7	...
Kent	0.45	0.30	7	2	2.41
Canaan	1.44	0.60	9	7	2.44
Content	1.94	1.00	15	5	2.26
Bellfield	0.45	0.30	7	2	1.68
Guildsbro	1.58	0.45	9	14	2.09
Glasgow	1.40	0.70	15	3	...
Moor Park	...	...	...	...	...
Rose Hall	...	...	...	...	...
Running Gut	...	...	...	...	...
Cinnamon Hill	...	...	...	...	...
Success	...	...	...	...	...
Montego Bay	2.07	1.13	8	8	2.06
Catherine Hall	...	...	...	...	...
Retirement	3.35	1.40	8	7	...
King Gate	2.85	1.01	16	6	2.94
Blue Hole	5.21	3.05	26	6	...
Houghton Court	1.45	0.65	8	3	1.86
Lucea	2.40	1.17	26	4	2.16
Green Island	3.27	1.65	27	4	...
CENTRAL SUB-DIVISION.					
Rio Magno	2.50	1.50	7	2	...
Headworks, Rio Cobre	1.31	0.60	12	4	1.63
Linstead	1.75	0.80	26	4	1.96
Berkshire Hall	2.73	1.25	9	7	2.09
Point Hill	5.27	2.30	11	6	3.85
Marlie Hill	...	...	...	...	...
Worthy Park	2.04	0.50	9	8	2.05
Croft Hill	0.77	0.37	9	5	...
Chapelton	2.05	1.06	9	5	1.80
Danks Works	1.94	0.82	9	6	1.85
Savoy House	2.09	0.80	7	7	1.74
Crooked River	2.42	1.00	10	4	...
Trout Hall	1.76	1.12	26	7	...
Frankfield	...	...	...	...	...
Cave Valley	...	...	...	...	...
Mean	2.77	...	...	...	...

WEST-CENTRAL DIVISION.		FEB, 1917.					SOUTHERN DIVISION.		FEB., 1917.				
		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.			Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
			Amount.	Date.						Amount.	Date.		
		In.	In.			In.			In.	In.			In.
Whitney	...	...	...	...	...	Morant Point L. H.	...	...	1.32	0.39	4	7	2.74
Mochó, Clarendon	...	1.25	1.05	7	3	1.77	Elliott Hill	...	1.49	0.24	28	14	...
Spaldings	...	2.56	0.70	25	12	...	Pleasant Hill	...	1.69	0.59	27	8	...
Baillieston	...	...	...	...	...	...	East Prospect	...	2.82	0.75	15	10	1.61
Brokenhurst	...	...	...	...	...	...	Morant Bay	...	1.06	0.31	26	7	2.03
Christiana	...	3.36	1.15	9	7	2.75	Easington	...	0.07	0.05	28	2	1.52
Chudleigh	...	4.91	1.73	12	11	2.47	Bull Bay	...	0.00	...	...	...	0.58
Shooter's Hill	...	3.03	0.80	25	11	...	Bellevue	...	1.82	0.94	9	8	...
Soitzbergen	...	...	...	...	...	...	Gordon Town	...	1.15	1.15	9	1	1.76
Kendal, Manchester	...	2.36	0.72	26	8	2.59	Hope Gardens	...	1.40	...	...	...	...
Marshalls Pen	...	2.17	0.80	24	8	3.74	King's House Gardens	...	1.88	0.80	16	6	1.55
Mandeville	...	1.45	0.36	7	11	2.87	Melrose	...	1.42	0.39	24	6	...
Carlton, Mandeville	...	1.18	0.45	12	5	2.87	Halfway Tree	...	1.04	0.42	16	6	0.88
The Hill	...	1.93	0.83	24	6	...	Lunatic Asylum	...	0.45	0.20	12	5	0.54
Fairfield, Manchester	...	2.68	0.78	12	11	3.11	Glenmore Road	...	0.84	0.40	24	6	...
Mile Gully	...	...	...	...	...	...	Kingston P. W. Office	...	0.16	0.09	24	4	0.67
Ulster Spring	...	7.45	1.75	16	8	2.76	Plumb Point L. H.	...	0.62	0.50	2	2	0.72
Freeman's Hall	...	6.55	2.35	16	9	...	Ferry	...	...	...	...	...	...
Albert Town	...	4.95	1.55	16	6	...	Clifton Pen	...	0.00	...	...	...	...
Lowe River	...	6.65	2.15	14	6	2.92	Quarantine Station	...	0.00	...	...	...	...
Troy	...	10.79	4.00	9	11	2.82	Spanish Town	...	0.12	0.08	6	2	1.34
Windsor Pen, Trel.	...	5.97	2.18	9	9	2.36	Hog Hole, St. Catherine	...	0.33	0.15	11	3	1.82
Medina	...	3.89	1.17	12	5	...	Hartlands	...	0.66	0.54	5	2	...
Wallingford	...	...	...	...	...	...	Belmont, Guanaboa Vale	...	3.02	1.45	9	7	...
Balaclava Police Station	...	6.36	1.70	15	11	2.29	Old Harbour	...	...	...	...	...	...
Siloah	...	7.88	2.50	9	4	3.08	May Pen	...	1.35	0.47	2	4	1.76
Appleton Estate	...	...	...	...	...	...	Hillside	...	...	...	...	...	...
Maggotty	...	5.49	1.30	15	8	2.70	Moreland	...	2.07	0.83	25	4	1.98
Butlers	...	...	...	...	...	...	Money Musk	...	...	...	...	...	...
Dromilly Pen	...	...	...	...	...	...	Dunkley's, Vere	...	1.11	1.00	9	3	1.17
Spring Vale	...	1.68	0.45	10	8	2.34	Dry River "	...	1.03	0.95	9	2	...
Garland	...	...	...	...	...	...	Denbigh	...	...	...	...	...	...
Mochó, Catadupa	...	5.94	1.86	17	9	...	Toll Gate	...	2.17	1.10	9	5	...
Springfield, St. Elizabeth	...	3.04	0.52	16	14	...	Woodleigh	...	...	...	...	...	...
Chesterfield, St. James	...	...	...	...	...	...	New Yarmouth	...	1.06	0.96	9	2	1.02
Catadupa Rly. Station	...	5.56	1.43	16	12	2.69	Exeter, Vere	...	0.55	0.30	9	3	...
Kempshot	...	4.44	1.78	16	8	3.00	Rhymesbury	...	...	...	...	...	...
Cambridge, St. James	...	6.99	2.95	16	7	...	Milk River	...	0.50	0.40	9	2	1.64
Ducketts	...	...	...	...	...	...	Clarendon Pk. Ry. St.	...	...	...	...	...	...
New Market, Police St.	...	5.04	1.95	26	11	...	Victoria Town	...	...	...	...	...	...
The Bog, New Market	...	4.17	1.20	11	13	...	Hog Hole, S. Manch.	...	1.32	0.55	24	6	...
Kew Park	...	4.67	0.98	21	14	...	Stone's Hope	...	0.71	0.32	16	3	2.22
Montpelier	...	4.52	1.25	27	8	...	Newport, Manchester	...	...	...	...	...	...
Knockalva	...	5.61	1.17	16	12	...	Great Valley, Man.	...	3.02	1.40	9	7	2.48
Ramble	...	...	...	...	...	...	Alligator Pond	...	...	...	...	...	...
Petersville	...	2.62	1.10	18	7	2.91	Southfield, St. Elizabeth	...	4.34	2.21	2	5	...
Darliston	...	3.94	0.80	18	13	3.63	Lititz	...	1.55	0.68	9	14	...
Bluefields	...	4.22	1.20	28	7	3.95	Torrington	...	6.56	2.65	12	6	2.52
Whithorn	...	2.37	0.70	26	16	3.40	Bethlehem, St. Eliz.	...	4.90	1.73	12	7	2.55
Water Works Pen	...	1.18	0.23	17	7	...	Santa Cruz	...	4.27	1.14	16	9	2.48
Great Valley, Han.	...	4.20	2.15	8	4	3.18	Pedro Plains Police St.	...	2.23	1.30	12	4	1.43
Prospect Park	...	...	...	...	...	...	Mountainside	...	2.11	0.77	16	5	...
Blackheath	...	...	...	...	...	...	Black River	...	1.96	0.78	12	8	1.78
Fontabelle, Westm.	...	2.28	0.68	11	4	2.63	Font Hill	...	2.25	1.10	16	4	1.38
Belleisle	...	...	...	...	...	...	Mount Edgecombe	...	1.96	0.57	28	6	2.48
Morgan's Bridge	...	2.46	0.87	28	7	2.43	Sweet River	...	0.80	0.32	15	7	2.32
King's Vale Police St.	...	4.93	1.63	28	8	2.73	Windsor, Sav.-la-mar	...	1.42	0.81	27	6	2.34
							Orchard	...	1.09	0.44	27	5	...
							Sav.-la-mar	...	1.94	1.31	27	6	2.00
							Meylersfield	...	...	...	...	...	...
							Little London	...	2.31	1.70	27	5	...
							Retreat	...	1.66	1.01	27	4	2.36
							Negril Point L.H.	...	0.57	0.39	27	4	1.54
Mean	...	4.15	...	...	...		Mean	...	1.60	...	...	...	...

NOTES.				SHOCKS OF EARTHQUAKE IN FEB., 1917.			
COMPARATIVE TABLE OF RAINFALL. (Based upon the "Average" Stations only.)							
DIVISIONAL AND ISLAND RAINFALL.	FEBRUARY.		Date.	Standard Time	Intensity.	Notes: where felt, etc.	
	1917.	Average.		(Approx.)			
	In.	In.					
North-Eastern Division	...	4.56			See below.		
Northern "	...	2.77					
West-Central "	...	4.15					
Southern "	...	1.60					
The Island	...	3.27					

The rainfall was therefore about the average for each division of the Island; as much as 15.52 fell at The Vinery, Portland; but no rain fell at Bull Bay, Clifton Pen, and the Quarantine Station.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

SHOCKS OF EARTHQUAKE IN FEBRUARY, 1917.			
Date.	Standard Time (Approx.)	Inten- sity.	Notes: where felt, &c.
	hr. m.		
16	6 15 a.m.	II	Harkers Hall,* St. Cath.
		I	Kingston: N & S., .002; 3 sec.
		I	Mt. Holstein: NW & SE, .002.
		I	Unity Valley; 2 sec.
		I	Siloah.
18	6 22 a.m.	IV	Kingston : NNW & SSE, .225; 10 sec. Felt over whole Island (See details given below).
20	2 30 p.m.	IV	Darliston and surrounding places. A deep seated shock felt over whole Island; at the east as long rolling waves (See details given below).
21	4 6 p.m.	I	Mt. Holstein.
22	10 20 a.m.	I	Mt. Holstein.
	1 2 p.m.	II	Mt. Holstein, double or two shocks; N & S, .016; NE & SW, .013.
	2 7 p.m.	II	Kingston; NW & SE, .010; 5 sec.
		I	Manningsfield, Vere.
23	4 20 a.m.	I	Windsor Pen, Trel.
	8 15	I	Unity Valley; Manningsfield.
	4 53 p.m.	I	do. do. Windsor Pen
	Midnt.	I	Mt. Holstein.
24	Early	..	Windsor Pen.
	2 40 p.m.	III	Kingston; ESE & WNW, .046; 15 sec. Morant Pt.; 20 to 25 sec.
		III	Mt. Holstein; NE & SW, .029; double.
		II	Manningsfield; Unity Valley, several sec.
	4 8 p.m.	I	Mt. Holstein; NE & SW, .006.
25	2 10 p.m.	I	Mt. Holstein, 2 shocks; later another.
	4 55 p.m.	I	Do.
26	5 0 a.m.	I	Do. N & S, .003; E & W, .003; double.
27	2 30 p.m.	II	Sav.-la-Mar; double.

It was to have been expected that a few shocks would occur when the ground dried after the heavy rains of last year, but there is no reason why the shocks should have been crowded into the latter half of February. New moon and perigee occurred together on the 21st, but as a rule the seismic effect of this combination is very small.

* About 8 miles east of Linstead.

In W. R. No. 424 it was shown that shocks coming from the same epicentre within a short interval of time should be bracketed together, and that the intervals were almost always 12, 24, or 36 hours; and that the same principle also applies to shocks coming from different epicentres within a short interval of time. In February 1917 the principle is extended to 48 hours.* Thus:—

				hr.	m.
16th	..	..	..	6	15 a.m.
18th	..	..	..	6	22 "
<hr/>					
20th	..	..	..	2	30 p.m.
22nd	..	..	..	2	7 "
24th	2	40 "
25th	2	10 "
27th	2	30 "
<hr/>					
21st	4	6 p.m.
23rd	4	20 a.m.
23rd	4	53 p.m.
24th	4	8 "
25th	4	55 "
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Therefore 12 shocks out of the 17 recorded followed this principle, and the 5 remaining shocks were slight, and possibly of the nature of after-shocks.

The following are the dates when shocks from different epicentres were "due," that is to say, might easily occur:—

Feb. 16.2	..	..	Mw	Feb. 24.2	..	..	C
19.0	..	..	O ₂	24.4	..	..	O
19.9	..	..	B ₃	25.0	..	..	H
20.7	..	..	P	25.0	..	..	A
20.7	..	..	D	25.5	..	..	B
22.3	..	..	D ₂	25.5	..	..	S
22.6	..	..	B ₂	25.9	..	..	ME
22.8	..	..	Y				

Now shocks of III, IV, and greater intensity, never occur unless two or more epicentres are "due"; how far they co-operate by giving off separate shocks or by acting as a "relay" in telegraphy, or by merely aiding the initial impulse from one epicentre, is difficult to say.

Mw seems to have started it all; this epicentre is about 5 miles east of the Bull Head in Clarendon; and the shock was felt at Mt. Holstein and Siloah, 35 miles east and west of Mw respectively.

On the 18th the shock certainly came from B₃, and as it passed westward it is at present impossible to say what effect O₂, on or near the Santa Cruz Mts., had on its passage.

Siloah had a shock out of proportion to the effect of B₃ reduced by distance. If O₂ had given off a No. II shock on the arrival of that from B₃, the shock from O₂ would have arrived at Siloah 9 sec. after that from B₃; but the account given refers only to a double shock lasting 10 sec. broken by an interval of one sec.

On the 20th the shock certainly came from D, near Darliston, and what effect P had near Kingston is again impossible to say.

The epicentre H gave the shock on the 24th; B on the 25th; and from what has already been said the shock on the 27th should be bracketed with that on the 25th as otherwise there is no reason why it should have occurred.

The following notes are recorded for future study. How difficult that study must be is evident from the different effects of a shock at different places. It would greatly assist matters if my correspondents were to report according to the Jamaica Earthquake scale; our earthquakes seem quite different to those experienced elsewhere; and the following scale seems to be well adapted for Jamaica:—

- I. Light shock.
- II. Well marked shock.
- III. Shock sufficient to make houses rock.
- IV. Shock sufficient to crack walls of houses.
- V. Shock sufficient to thrown down a few houses.
- VI. Shock sufficient to throw down almost all houses.

*Of which there were only few cases among the earlier recorded shocks.

SHOCK, FEB. 18th, 6 hr. 22 m. a.m.

	hr.	m.	
Mt. Holstein	6	24 a.m.	Two shocks of considerable violence, with an interval of 2 or 3 sec. between them: one N & S, .079; the other NW & SE, .085. Frequent after-shocks during the day.
Stony Hill	13		Very severe: lasted 45 sec.: worst since 1907.
Kingston	22		NNW & SSE, 0.225; double; 10 sec.
Morant Pt.	25		
Annotto Bay	20		Very severe: a few sec.
Port Maria	30		Two shocks: a few sec.
Spanish Tn.	24		
Linstead	22		Sharp double shock, E & W.
Old Harbour	0		Heavy.
Manningsfield	..		Sharp shock.
Milk River	35		Two shocks, long continued.
Victoria Tn.	15		One very strong shock.
Redwood	25		Severe: some sec.
Unity Valley	20		Slight.
Claremont	23		Several sec.
St. Ann's Bay	25		N & S: short and sharp.
Savoy	24		E & W: 3 to 5 sec.
Pratville	15		Two shocks lasting about 30 sec.
Springfield	30		
Santa Cruz	30		Very heavy, a few sec.
Siloah	15		Sharp and prolonged: 5 sec., then an interval of 1 sec. and then 4 sec. NW & SE. Worst since 1907.
Windsor Pen	26		Lasted 5 sec.
Maggotty	20		Very sharp: 2 or 3 sec.
Mt. Edgecombe	23		N & S: short and sharp, double.
Petersville	15		
Orchar ¹ , Sav-la-Mar	20		No. II shock: E and W.
Petersfield	..		No. II shock.
Great Valley	30		No. II. The seismometer showed motion of less than 0.02: N & S, and also E & W.

This shock came from the epicentre B₃ in the Blue Mts., which was due Feb. 19.9; but the epicentre B, which was not due, apparently co-operated, so that the centre of the seismic motion was about 6 miles south of Mt. Holstein where there were two distinct shocks, and frequent after-shocks during the day. These epicentres agree with the directions recorded by the seismometer at Mt. Holstein, and also with the principal direction NNW & SSE recorded in Kingston: but the Kingston seismometer gave a very tangled record, and the direction was chiefly taken from the moving and falling of light articles in a house in S. Camp road.

As the shock travelled westward it seems to have been reinforced as it passed Siloah; the epicentre O₂ was due, and it seems to have acted as a "relay" in telegraphy. On the other hand Siloah seems sensitive to seismic action; between the 18th and the 25th, besides the well-marked shocks, the ground was continually moving.

It is to be remarked that time is kept much better throughout the Island than in years past, when large differences between the clocks made it uncertain whether different places did not feel different shocks!

SHOCK FEB. 20th. 2 hr. 30 m., p.m.

	hr.	m.	
Darliston ..	2	40	Great intensity; 4 sec.
Petersfield	No. IV or V on the Jamaica scale.
Sav.-la-Mar	30	Two powerful shocks.
Orchard, Sav.-la-Mar	32	No. III or IV; E & W; 20 to 30 sec.
Great Valley	45	Longest and worst shock ever felt: needle of seismometer thrown out of place: E & W?
Brownsville	Walls cracked.
Sandy Bay	35	Very sharp shock.
Lucea	30	Severe, causing great alarm.
Negril Pt.	31	The seismometer gave a tangled record but the dampers of the Gray-Milne showed NE & SW and ENE & WSW respectively. motion at least 0.4: 7 sec.
Mt. Edgecombe	27	Two distinct shocks N & S; much more violent than on 18th.
Petersville	40	A long shock.
Cambridge	30	Heavy: some persons felt 3 shocks: small articles fell off tables and shelves.
Kempshot	30	No. II or III: double: 2 sec., then an interval of 1 sec. and 2 sec. again. On solid rock, shocks are seldom felt at this place.
Springfield	30	
Black River	42	Two distinct strong shocks.
Siloah	Alarming.
Windsor Pen	30	Strong: 60 sec. Worst since 1907.
Stewart Tn.	30	Two heavy shocks, N & S.
Ulster Spring	32	Two heavy shocks; 20 sec. Some buildings damaged.
Christiana	25	No. III. Strong buildings rocked.
Mandeville	30	Two shocks in quick succession.
Browns Tn.	30	Two distinct shocks; N & S.
St. Ann's Bay	30	Shock heavier than on 18th.
Savoy	31	E & W; heavier and longer than on 18th.
Chapelton	30	Severe shocks, several sec.
Porus	32	do. do.
Milk River	30	Heavier than on 18th.
Race Course	30	Severe, several sec.
Manningsfield	35	Double.
Unity Valley	30	Double; well marked but slow.
Ocho Rios	30	Fairly sharp shock, longer, &c.
Linstead	32	Three shocks in quick succession.
Port Maria	35	Two shocks; water in fountain thrown out.
Spanish Tn.	30	Double; 20 sec.
Kingston	30	Long waves having period of 2 sec., lasted 20 sec. Swing of pendulum (not magnified) 2.57 inches.
Mt. Holstein	25	Double shock; 3 or 4 sec. NW & SE, 0.045; movement gentle and regular.
Buff Bay	Buildings rocked.

This shock came from the epicentre D near Darliston, which was due Feb. 20.7, and it swept eastward over the Island; it seems to have been deeply seated so that it was everywhere strongly felt; and towards Kingston the shock consisted of undulating waves, so that at Port Maria this motion threw the water out of a fountain or basin.

Of course these undulations gave very tangled records on the pendulum seismometers at Kingston, which are intended to catch the first quick direct vibrations of a shock.

We again notice the usual differences at different places: but the "double" shock was noticed at so many places on this occasion, that a special note is given below on this subject. It is hardly necessary to add that "double" shocks have been continually recorded in Jamaica since the Weather Service commenced in 1880.

The time kept throughout the Island on the 20th is even better than on the 18th.

THE DOUBLE SHOCK.

In my Report on the Great Earthquake of Jan. 14th 1907, I wrote a few lines "*On the nature of the shocks.*" (W.R. No. 337, p.8.)

To those lines I would now add a few words, so that they would be as follows:—

"First comes the booming sound, increasing as it approaches the observer; then come quick vibrations of the ground so that walls vibrate rapidly, several times in a second; among these vibrations occur the violent shocks or jerks which throw light articles on shelves and tables to a considerable distance; and lastly come twisting or vertical undulations of the ground which follow one another every second or two, and which may be so large as to throw down buildings."

Following the late Prof. Milne, the former vibrations are normal and are due to compression as in the case of Sound; the twisting undulations are transversal and due to distortion, and may be compared with the undulations of Light; but in consequence of the difference in their mode of progression they meet with a difference in the elasticity of the strata of rock composing the earth's crust.

Prof. Milne wrote (Earthquakes 5th Edition p. 50):—

"In consequence of the difference in the elastic forces on which the propagation of these two kinds of vibration depends, the normal vibrations are transmitted faster than the transversal ones—that is to say, if an earthquake originated from a blow, the first thing that would be felt at a point distant from the origin of the shock would be a backward and forward motion in the direction to and from the origin, and then, a short interval afterwards, a motion transversal, or at right angles to this would be experienced."

Then again on p. 60:—

"The velocity of propagation of the transverse vibrations seemed to approach more and more to that of the direct vibrations as the distance from the origin of the disturbance increased."

Let V be the velocity of the normal vibrations due to compression, and let $V(1-\frac{k}{r})$ be the velocity of the transverse undulations due to distortion, where k is a constant and r the distance from the origin in miles at a given place; then if t be the time the normal vibrations take to travel from the origin to the place, the distance between the two sets of vibrations on the arrival of the former will be $Vt - Vt(1-\frac{k}{r})$ or $\frac{Vt k}{r}$; but $Vt=r$, so that the distance between the two sets of vibrations is k a constant. And as the velocity V is about 2 miles a second in Jamaica,* and as the interval producing the double shock in Jamaica is always about a second or two, it follows that k is about 2 miles or 4 miles.

These remarks refer to shocks produced by subterranean explosions or disturbances at places near the origin; the intervals between the preliminary tremors, secondary tremors, long undulations, etc., of large earthquakes, as recorded on seismographs at great distances, continually increase with the distance.

M. H.
27.2.17.

* It is 1.4 miles a sec. in Japan. (Milne Seismology 1st Ed. p. 110.)



JAMAICA

WEATHER REPORT

FOR THE MONTH OF

MARCH, 1917.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky ; the Lower clouds are for the most part racto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

[illegible][illegible]

* and on other days.

‡ Negril Point Light House.

* and on other days.	† Hope Gardens.	Bar. read at 9 a.m. and 3 p.m.
‡ Negril Point Light House.	Wind 11 p.m.	E.N.E. 7.0
** Bavinton. Stony Hill.	Mean Min. temp on grass	58.0
	Earth temp. 1 ft. below surface	73.2
	" 4 ft. "	72.8

Mean Min. temp on grass
Earth temp. 1 ft. below surface
" 4 ft. " "

Bar. read at 9 a.m. and 3 p.m.

7.0

58.0

73.2
72.8

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	MAR., 1917.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount	Date.		
	In.	In.			In.
Manchioneal	2.48	0.60	1	11	3.26
Spring Valley, Portland	3.56	0.93	1	12	...
Bath	2.42	0.35	20	18	4 57
Priestman's River	2.27	0.60	11	11	...
Moore Town	5.24	1.02	4	10	10.97
Port Antonio	2.75	0.54	6	13	4.90
Fellowship	3.28	0.46	6	16	8.09
Johnson River Bridge	3.43	1.42	30	17	2.59
Shrewsbury	5.40	1.05	1	11	11.31
Cedar Valley, St. Thos.	2.56	1.15	31	7	3.30
Hope Bay	2.05	0.35	2	13	...
Moy Hall, St. Thos.	...	...	...	...	...
Brooklodge	1.21	0.37	30	7	...
Lennox	3.35	0.75	2	14	...
Farm Hill	0.92	0.40	31	3	5.01
Hill Gardens	3.36	1.62	31	7	5.19
Buff Bay	2.31	0.60	2	9	5.79
Vinery	3.72	1.41	12	6	8.51
Windsor Castle, Port.	0.60	0.60	26	1	...
Greenvale, Portland	5.15	2.24	31	12	11.77
Mt. Holstein	2.27	0.97	31	18	9.53
Irish Town	0.43	0.43	30	1	2.87
Rose Hill	2.97	1.50	31	5	...
Hardware Gap	4.00	...	...	...	4.50
Stony Hill Ind. School	1.58	0.96	31	6	2.99
Castleton Gardens	2.86	1.13	31	9	4.93
Lawrence Tavern	3.70	2.50	31	4	2.69
Cedar Valley, Red Hills	0.74	0.23	20	5	...
Zion Hill	3.11	1.50	31	6	...
Agualta Vale	1.78	0.62	2	8	5.50
Water Valley	3.02	0.90	2	13	5.39
Albany, Ry. Station	...	...	...	...	...
Platfield	...	...	...	...	...
Richmond, St. Mary	2.94	0.60	1	9	3.75
Highgate	3.67	0.69	12	12	...
Hampstead, St. Mary	2.00	0.50	12	10	6.07
Guy's Hill	2.99	1.08	31	7	...
Lucky Hill	2.07	0.37	31	9	...
Rio Hoe	2.56	0.69	7	8	3.64
Unity Valley	4.43	1.52	31	15	3.64
Moneague	4.80	0.85	31	11	3.03
Claremont	0.75	0.40	7	2	3.43
Albion, St. Ann	4.09	1.23	31	14	3.61
Averham Park	0.76	0.40	7	6	3.81
Mean	2.93	...	...	...	...

NORTHERN DIVISION.	MAR., 1917.				
	Total fall.	Amount.	Greatest fall in 24 hours.		Average.
			Date	Days on which 0.01 or more fell.	
	In.	In.			
Port Maria	2.88	0.55	25	12	3.19
Ocho Rios	1.20	0.25	11	7	3.54
Bogue, Ocho Rios	1.56	0.50	2	5	...
Rockfield	1.98	0.93	13	6	...
Drax Hall	1.70	0.50	25	7	3.21
Liberty Hill	2.09	0.70	12	8	5.00
St. Ann's Bay	1.80	0.55	25	10	2.40
Seville	1.55	0.62	25	7	3.07
Richmond Estate	1.40	0.40	25	8	...
Llandoverly	1.45	0.45	4	5	2.80
Runaway Bay	0.93	0.22	1	6	...
Brown's Town	1.54	0.74	24	3	2.99
Alexandria	3.24	1.32	31	4	...
Chewmagna, St. Ann	2.35	0.90	31	9	3.37
Home Castle	1.35	0.45	...	6	2.56
Richmond Pen	...	...	...	...	...
Mahogany Hall	0.76	0.20	24	6	2.57
Barnstaple	0.95	0.65	5	2	...
Brampton Bryan	...	...	...	...	...
Bryan Castle	0.72	0.30	12	5	1.88
Braco	0.20	0.20	13	1	1.62
Arcadia	1.70	1.00	3	2	1.84
Lancaster	0.72	0.40	12	3	1.92
Harmony Hall	0.46	0.22	12	3	1.74
Vale Royal	1.11	0.70	13	2	2.28
Colchis Pen	...	...	...	...	...
Swanswick	0.60	0.45	13	2	...
Georgia	1.30	0.50	13	7	...
Long Pond	0.81	0.35	13	5	...
Duncans	...	...	...	...	...
Hyde Hall	1.00	0.45	3	3	...
Steelfield	1.20	0.66	13	2	...
Etingdon	...	...	...	...	...
Lottery	0.90	0.45	3	2	2.00
Falmouth	0.55	0.21	3	4	1.76
Florence Hall	...	...	...	...	...
Good Hope	2.37	1.00	2	4	...
Unity	1.12	0.48	3	5	...
Kent	0.75	0.40	13	3	...
Canaan	2.16	0.98	31	4	2.23
Content	1.79	0.82	3	4	...
Bellfield	...	...	...	...	...
Guilsbro	1.54	0.92	3	11	1.77
Glasgow	2.35	1.65	3	2	...
Moor Park	1.70	1.55	3	2	1.88
Rose Hall	...	...	...	...	...
Running Gut	...	...	...	...	...
Cinnamon Hill	...	...	...	...	...
Success	...	...	...	...	...
Montego Bay	1.60	1.56	3	2	1.58
Catherine Hall	...	...	...	...	...
Retirement	1.44	1.10	3	5	...
King Gate	1.10	1.01	4	2	3.18
Blue Hole	2.34	1.45	3	3	...
Haughton Court	1.95	0.60	3	4	2.47
Lucea	3.23	1.45	31	6	2.33
Green Island	4.30	1.45	3	10	...
CENTRAL SUB-DIVISION.					
Rio Magno	2.20	1.20	31	2	...
Headworks, Rio Cobre	2.45	0.72	8	8	...
Linstead	2.85	2.60	30	7	3.06
Berkshire Hall	2.78	0.66	25	9	2.96
Point Hill	5.85	3.00	30	5	5.25
Marlie Hill	...	...	...	...	...
Worthy Park	3.33	1.26	31	6	2.84
Croft Hill	7.02	3.64	31	5	...
Chapelton	2.24	1.48	31	6	2.70
Danks Works	2.68	1.12	31	9	3.26
Savoy House	2.30	0.95	31	8	4.07
Crooked River	3.33	2.50	31	4	...
Trout Hall	3.33	1.46	31	9	...
Frankfield	...	...	...	...	...
Cave Valley	...	...	...	...	...
Mean	1.83	...	...	...	...

WEST-CENTRAL DIVISION.	MAR., 1917.					SOUTHERN DIVISION.	MAR., 1917.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Whitney ...	0.91	0.31	18	5	3.64	Morant Point L. H. ...	1.94	0.39	23	16	2.11
Mochó, Clarendon ...	2.85	2.35	31	2	4.84	Elliott Hill ...	2.98	0.72	1	18	...
Spaldings ...	5.03	1.84	31	11	...	Pleasant Hill ...	2.25	0.49	31	11	...
Baillieston ...	...	...	...	...	...	East Prospect ...	3.09	0.75	30	16	1.39
Brokenhurst ...	1.78	1.35	31	6	2.70	Morant Bay ...	2.09	0.67	8	10	1.79
Christiana ...	4.52	2.22	31	10	4.06	Easington ...	1.19	0.23	3	14	2.94
Chudleigh ...	2.87	1.62	31	14	3.90	Bull Bay ...	0.00	...	...	...	0.34
Shooter's Hill ...	4.97	2.14	31	9	...	Bellevue ...	2.05	1.29	31	5	...
Spitzbergen ...	...	...	...	...	...	Gordon Town ...	0.45	0.25	30	2	1.54
Kendal, Manchester ...	5.42	2.28	31	7	3.44	Hope Gardens ...	...	...	...	...	...
Marshall's Pen ...	3.80	1.80	31	12	3.86	King's House Gardens ...	...	...	...	...	...
Mandeville ...	4.53	0.97	31	12	4.28	Melrose ...	0.00	...	...	...	...
Carlton, Mandeville ...	3.97	0.95	3	9	4.28	Halfway Tree ...	0.00	...	...	...	1.06
The Hill ...	2.15	0.67	8	8	...	Lunatic Asylum ...	0.15	0.10	9	4	0.97
Fairfield, Manchester ...	1.48	0.50	31	13	3.84	Glenmore Road ...	0.12	0.06	1	5	...
Mile Gully ...	...	...	...	...	...	Kingston P. W. Office ...	0.07	0.04	1	4	1.05
Ulster Spring ...	5.05	3.00	31	7	3.40	Plumb Point L. H. ...	0.32	0.13	3	4	0.91
Freeman's Hall ...	4.50	1.50	31	6	...	Ferry ...	...	...	...	...	...
Albert Town ...	2.43	1.38	31	3	...	Clifton Pen ...	0.00	...	...	...	...
Lowe River ...	3.10	1.75	31	2	5.54	Quarantine Station ...	0.22	0.17	30	2	...
Troy ...	5.32	1.50	30	6	6.17	Spanish Town ...	0.36	0.16	23	3	2.10
Windsor Pen, Trel. ...	1.14	0.50	31	5	3.07	Hog Hole, St. Catherine... ..	1.52	1.31	23	2	...
Medina ...	2.15	1.64	31	2	...	Hartlands ...	1.53	0.88	23	3	1.75
Wallingford ...	...	...	...	...	...	Belmont, Guanaboa Vale ...	7.00	1.56	31	15	...
Balaclava Police Station... ..	4.37	1.37	11	7	4.74	Old Harbour ...	...	...	...	...	...
Siloah ...	2.65	0.95	8	6	5.68	May Pen ...	3.19	0.60	8	8	2.01
Appleton Estate ...	...	...	...	...	...	Hillside ...	...	...	...	...	...
Maggotty ...	1.70	0.56	8	5	5.80	Moreland ...	0.25	0.25	4	1	1.61
Butlers ...	1.58	0.75	8	5	...	Money Musk ...	...	...	...	...	...
Dromilly Pen ...	1.73	0.82	4	3	...	Dunkley's, Vere ...	1.30	0.70	31	5	1.49
Spring Vale ...	2.10	0.60	4	5	2.92	Dry River " ...	3.93	1.80	30	9	...
Garland ...	...	...	...	...	...	Denbigh ...	4.20	1.50	30	4	2.06
Mochó, Catadupa ...	3.33	1.30	7	6	...	Toll Gate ...	0.84	0.36	31	4	...
Springfield, St. Elizabeth ...	2.58	0.54	9	11	...	Woodleigh ...	4.40	1.60	30	4	...
Chesterfield, St. James ...	...	...	...	...	...	New Yarmouth ...	1.63	1.22	31	5	1.26
Catadupa Rly. Station ...	3.19	0.83	7	9	4.16	Exeter, Vere ...	...	...	...	3	...
Kempshot ...	1.22	0.86	3	4	3.00	Rhymesbury ...	...	...	...	...	...
Cambridge, St. James ...	5.00	1.30	31	10	...	Milk River ...	0.75	0.75	31	1	1.66
Ducketts ...	...	...	...	...	...	Clarendon Pk. Ry. St. ...	0.75	0.40	7	2	...
New Market, Police St. ...	2.23	0.60	11	9	...	Victoria Town ...	...	...	...	...	...
The Bog, New Market ...	2.42	1.00	11	5	...	Hog Hole, S. Manch. ...	1.17	0.52	31	5	...
Kew Park ...	4.08	0.88	31	15	4.10	Stone's Hope ...	1.93	1.31	31	4	2.64
Montpelier ...	0.93	0.56	25	4	...	Newport, Manchester ...	...	...	...	...	...
Knockalva ...	2.51	0.69	31	12	...	Great Valley, Man. ...	1.46	0.91	31	7	2.23
Ramble ...	2.64	1.16	31	5	...	Alligator Pond ...	...	...	...	...	...
Petersville ...	1.39	0.27	11	13	5.18	Southfield, St. Elizabeth ...	0.51	0.17	23	4	...
Darliston ...	4.12	0.73	30	13	6.54	Lititz ...	0.46	0.12	8	5	...
Bluefields ...	8.41	1.72	9	12	8.24	Torrington ...	2.40	0.92	31	5	3.47
Whithorn ...	4.10	1.73	8	12	5.87	Bethlehem, St. Eliz. ...	2.93	1.35	31	11	4.25
Water Works Pen ...	3.90	1.75	7	11	...	Santa Cruz ...	2.66	1.27	10	6	4.26
Great Valley, Han. ...	3.95	1.53	3	4	3.79	Pedro Plains Police St. ...	0.00	...	...	...	2.34
Prospect Park ...	...	...	...	...	...	Mountainside ...	2.57	2.00	31	6	...
Blackheath ...	...	...	...	...	...	Black River ...	0.75	0.40	9	6	2.59
Fontabelle, Westm. ...	...	...	...	...	...	Font Hill ...	2.55	1.00	8	8	4.09
Belleisle ...	...	...	...	...	...	Mount Edgecombe ...	1.37	0.61	11	10	4.10
Morgan's Bridge ...	5.67	1.65	31	11	4.75	Sweet River ...	2.80	1.30	7	9	3.54
King's Vale Police St. ...	5.10	1.85	3	12	4.91	Windsor, Sav.-la-mar ...	3.11	1.24	7	11	2.90
						Orchard ...	3.09	1.63	7	11	...
						Sav.-la-mar ...	3.32	0.91	7	9	2.63
						Meylersfield ...	...	...	...	...	...
						Little London ...	4.77	1.56	30	13	...
						Retreat ...	3.54	0.75	7	01	3.28
						Negril Point L.H. ...	2.51	0.81	7	11	2.34
Mean ...	3.53	...	...	...	...	Mean ...	1.72	...	...	...	...

NOTES.			SHOCKS OF EARTHQUAKE IN MAR., 1917.			
COMPARATIVE TABLE OF RAINFALL. (Based upon the "Average" Stations only.)						
DIVISIONAL AND ISLAND RAINFALL.	MARCH.		Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
	1917.	Average.				
	In.	In.		hr. min.	I	
North-Eastern Division	...	4.61	5	3 40 a.m.	I	Manningsfield, Vere.
Northern	...	2.36				
West-Central	...	4.18				
Southern	...	2.22				
The Island	...	3.34				

A few places near Kingston had no rain, otherwise the rainfall was fairly uniformly distributed over the Island.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

Mean Results: Negril Point Light House for the year 1916. Elevation 33 ft.

Month.	Barometer.		Temperature.						Extremes for the Month.			Dewpoint and humidity.				Rain-fall.	Wind per diem. Miles.
	7 a.m.	3 p.m.	Mean.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Min.	Range.	7 a.m.		3 p.m.			
												°	%	°	%		
January	30.012	29.955	77.5	72.3	83.9	86.1	69.5	16.6	89.3	62.6	26.7	67.1	83	72.1	68	0.53	247
February	29.989	29.939	75.1	71.3	80.3	82.5	68.4	14.1	86.4	62.9	23.5	64.5	79	67.0	64	2.63	270
March	29.989	29.933	75.7	71.8	81.3	83.3	68.5	14.8	85.7	64.0	21.7	64.5	77	67.8	64	0.97	240
April	29.935	29.896	78.3	75.7	82.7	85.0	71.6	13.4	87.8	64.6	23.2	69.6	81	70.1	66	6.68	203
May	29.906	29.869	79.3	78.2	83.3	85.0	72.6	12.4	87.7	69.5	18.2	71.7	80	73.4	73	8.70	206
June	29.910	29.887	80.3	79.6	83.0	87.6	72.9	14.7	91.1	69.6	21.5	71.0	75	73.5	74	7.99	201
July	29.912	29.893	80.6	79.1	84.3	87.5	73.4	14.1	91.1	71.1	20.0	72.9	81	74.8	73	5.94	248
August	29.921	29.899	79.8	77.6	83.4	87.2	72.9	14.3	89.0	69.6	19.8	71.2	80	75.3	77	10.65	255
September	29.893	29.863	80.4	77.9	85.0	87.7	73.1	14.6	89.8	69.7	20.1	73.3	85	75.7	75	5.96	165
October	29.815	29.773	79.1	76.6	82.7	85.5	73.7	11.8	88.3	69.7	18.6	73.1	88	74.6	76	10.75	226
November	29.868	29.817	78.0	74.9	81.9	84.5	72.7	11.8	88.3	66.4	21.9	71.4	88	74.2	78	6.20	253
December	29.975	29.914	76.0	70.6	82.6	84.5	68.1	16.4	87.4	62.4	25.0	64.5	81	68.4	63	1.22	231
Means	29.927	29.887	78.3	75.5	82.9	85.5	71.5	14.0	88.5	66.8	21.7	69.6	82	72.2	71	..	229
Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	68.22	

Mean results, continued. Negril Point Light House.

Month.	Wind from and miles per hour.			Clouds in tenths of Sky.				Weather Conditions.					
	7 a.m.		3 p.m.	11 p.m.		Lower.	Middle.		Upper.				
	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.					3 p.m.			
January	NE	10.4	NE	13.1	NE	9.8	0.8	0.4	0.3	5.2	4.5	0.4	Fine 10, cloudy 11, overcast 4, rain 6 days. TL on 13th, L on 14th and 15th, rainfall below average.
February	NE	10.7	N	15.1	NE	9.5	0.3	2.9	1.5	3.8	0.7	0.8	Fine 3, cloudy 8, overcast 9, rain 9 days. Brisk Nly winds from 15th. Rainfall above average.
March	NE	9.6	NNW	13.7	NE	9.4	1.7	2.8	0.8	3.0	1.4	1.0	Fine 8, cloudy 10, overcast 8, rain 5 days. Rainfall below average.
April	ENE	7.0	SW	11.2	E	7.6	1.9	3.3	1.7	4.0	2.0	1.0	Fine 1, cloudy 7, overcast 13, rain 9 days. TL on 16th, 22nd, 23rd and 26th. T or L frequent. Rainfall above average.
May	E	8.2	SSE	10.9	E	7.5	2.7	3.1	0.9	5.4	3.0	0.4	Fine 1, cloudy 6, overcast 9, rain 15 days. TL on 12th, 13th, 22nd, 26th, 29th and 30th. T or L frequently. Rainfall above average.
June	ENE	7.3	SSE	13.5	ENE	7.9	0.7	2.3	0.8	6.3	5.3	0.3	Cloudy 2, overcast 12, rain 16 days. TL, T or L very frequent. Rainfall above average.
July	ENE	9.3	ESE	13.5	ENE	8.1	3.2	1.0	0.9	5.5	3.4	0.8	Cloudy 7, overcast 11, rain 13 days. TL, T or L very frequent. Rainfall normal.
August	E	9.3	SE	13.4	ENE	9.0	3.2	5.0	0.4	2.8	4.0	5.5	Fine 3, cloudy 4, overcast 8, rain 16 days. Storm on 15th and 16th. Gale on 30th. TL on 9 days. T or L many days. Rainfall above average.
September	ENE	6.8	Var.	10.4	ENE	6.1	0.3	2.2	0.4	5.7	5.1	5.1	Cloudy 8, overcast 7, rain 15 days. TL on 7th, 19th, 20th, 28th and 29th, T or L on many days. Rainfall below average.
October	NE	8.1	Var.	11.7	ENE	8.9	2.9	3.5	0.5	3.9	2.8	1.7	Fine 2, cloudy 6, overcast 6, rain 17 days. TL on 8th, 9th, 10th and 17th, T or L on a few days. Rainfall above average.
November	ENE	10.2	E	12.6	N	10.6	3.6	5.0	1.2	2.2	2.2	1.1	Fine 2, cloudy 2, overcast 6, rain 20 days. TL on 5th, 7th, 13th, 19th and 23rd, T or L on many days Bar. depression from 7th to 14th. Rainfall nearly twice average.
December	NE	9.6	Var.	12.2	NE	9.9	0.6	1.3	0.9	2.6	1.7	1.0	Fine 13, cloudy 11, overcast 4, rain 3 days, L on 4th and 5th. Rainfall below average.
Means	ENE	8.9	ESE	12.6	ENE	8.7	1.8	2.7	0.9	4.2	3.0	1.6	The rainfall for the year is above the average with 144 rainy days and had it not been for the set back caused by the weather in August this would have been a very good year for agriculturists.



JAMAICA

WEATHER REPORT

FOR THE MONTH OF

APRIL, 1917.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.947	29.916	76.3	80.7	83.0	70.4	12.6	85.0	13	63.0	25	22.0
Kingston ..	24	29.930	29.888	73.1	82.6	86.9	69.5	17.4	90.8	24	66.4	1*	24.4
Negril Point Light House ..	33	29.932	29.892	74.5	82.2	85.0	69.2	15.8	88.4	28	64.5	28	23.9
Castleton Gardens ..	496	..	..	64.9	79.0	85.1	64.0	21.1	90	16	59	2*	31
Hope Gardens† ..	668	..	..	71.4	79.8	85.4	66.7	18.7	90	17	65	1*	25
Bavinton, Stony Hill** ..	1,349	29.948	29.882	67.2	75.1	79.7	63.6	16.1	84.0	17	59.0	24	25.0
Stony Hill Indus. School ..	1,400	..	..	67.2	76.2	79.1	63.9	15.2	84	17	61	1*	23
Hill Gardens ..	4,900	..	..	60.4	61.9	64.7	53.8	10.9	69	17	51	1*	18

STATIONS.	Elevation.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.					7 a.m.	3 p.m.			7 a.m.	3 p.m.				
Morant Pt. Light House	ft. 8	° 68.8	° 77	° 68.0	° 65	in. 2.88	miles 201	Var.	8	ENE	11	L. 2.9	M. 0.7	U. 0.5	L. 2.5	M. 1.3	U. 0.5
Kingston	24	66.5	80	68.6	62	0.97	160	N	4	SE	11	0.9	0.8	0.4	3.5	2.5	0.8
Negril Point Light House†	33	68.4	81	69.9	66	0.35	214	E	6	Var.	12	1.3	1.7	2.0	1.0	4.7	1.8
Castleton Gardens	496	63.2	93	70.2	74	6.79	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	61.9	73	68.0	67	3.93	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	62.7	86	65.6	72	7.53	..	NE	2	S	6	2.0	1.1	1.0	4.9	2.7	0.5
Stony Hill Indus. School	1,400	62.6	85	61.8	67	8.33	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	4,900	54.0	81	59.1	90	7.30	..	..	..	..	..	..	..	..	..	..	..

* and on other days.

† Negril Point Light House.

** Bavinton, Stony Hill.

† Hope Gardens.

Bar. read at 9 a.m. and 3 p.m.

Wind 11 p.m.

E.N.E.

8.2

Mean Min. temp on grass

59.9

Earth temp. 1 ft. below surface

74.7

" 4 ft. " "

73.9

APRIL, 1917.

NORTHERN DIVISION.

Greatest fall
in 24 hours.

NORTH-EASTERN DIVISION.		APRIL, 1917.					Bryan Castle							
		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.								
			Amount	Date.										
	In.	In.			In.									
Manchioneal	7.51	3.25	19	12	6.32	Braco	8.15	2.10	21	10	4.66			
Spring Valley, Portland	7.68	3.57	19	8		Arcadia	8.75	2.50	21	9	2.28			
Bath	4.03	1.40	14	11	5.65	Lancaster	7.54	2.80	21	9	2.26			
Priestman's River	9.35	4.60	10	9		Harmony Hall	6.31	2.30	21	11	2.07			
Moore Town	17.17	10.60	11	8	9.77	Vale Royal	6.21	1.72	21	9	2.84			
Port Antonio	5.23	1.80	19	11	6.27	Colchis Pen.	5.53	1.00	12	15	3.08			
Fellowship	13.15	4.50	11	11	9.24	Swanswick	10.80	2.00	19	16	1.44			
Johnson River Bridge	7.87	3.63	14	12	4.38	Georgia	6.31	1.58	21	14	2.37			
Shrewsbury	5.93	0.90	25	12	6.29	Long Pond	9.38	1.82	21	14	1.58			
Cedar Valley, St. Thos.	10.65	2.55	1	9	3.94	Duncans								
Hope Bay	10.45	4.90	11	9		Hyde Hall	9.40	2.20	21	12	2.24			
Moy Hall, St. Thos.						Steelfield	7.41	1.86	21	8	2.41			
Brookledge	8.18	2.76	19	13		Etingdon	6.82	1.10	21	8				
Lennox						Lottery	10.05	3.35	6	11	2.30			
Farm Hill	7.16	2.98	18	9	5.64	Falmouth	5.41	2.35	20	11	2.20			
Hill Gardens	7.30	1.00	17	20	6.09	Florence Hall								
Buff Bay	7.28	4.26	11	10		Good Hope	9.80	1.75	6	13				
Vinery	14.53	6.10	11	13	8.56	Unity	8.89	2.02	21	13				
Windsor Castle, Port.	4.97	3.00	11	7		Kent	3.81	1.15	20	5	2.39			
Greenvale, Portland	10.13	2.19	18	12	8.88	Canaan	8.29	1.52	19	14	3.62			
Mt. Holstein	13.41	1.73	23	21	6.00	Content	6.02	1.32	10	9	2.35			
Irish Town	7.38	1.20	11	11	5.11	Bellfield								
Rose Hill	14.47	3.48	18	15		Gulbro	6.90	1.42	6	19	3.25			
Hardware Gap	9.50				5.86	Glasgow	5.32	3.00	11	7				
Stony Hill Ind. School	8.33	1.40	19	18	5.24	Moor Park	3.10	1.50	5	5	2.99			
Castleton Gardens	7.77	1.43	30	18	6.80	Rose Hall								
Lawrence Tavern	6.19	1.65	11	14	4.24	Running Gut								
Cedar Valley, Red Hills	7.14	1.80	14	12		Cinnamon Hill								
Zion Hill	13.46	5.75	14	17		Success								
Agualta Vale	7.94	2.33	11	12	4.44	Spring Estate	1.60				2.08			
Water Valley	9.76	2.85	20	13	4.44	Montego Bay	1.64	0.62	20	7	3.71			
Albany, Ry. Station						Catherine Hall	2.11	0.66	10	7	4.16			
Platfield						Retirement	6.79	1.45	12	13				
Richmond, St. Mary	6.04	1.56	17	9	4.54	King Gate	3.84	1.20	20	9	3.70			
Highgate	5.59	1.30	10	8		Blue Hole	6.99	3.37	20	7				
Hampstead, St. Mary	8.31	2.54	20	11	6.18	Haughton Court	1.40	0.60	11	4	3.67			
Guy's Hill	9.81	4.50	21	7		Lucea	1.53	0.70	11	4	4.07			
Lucky Hill	6.97	1.68	20	15		Green Island	1.12	0.47	12	4				
Rio Hoe	6.90	1.75	22	17	4.38	CENTRAL SUB-DIVISION.								
Unity Valley	9.95	3.00	22	18	4.61	Rio Magno	6.91	1.51	23	7				
Moneague	12.23	3.55	22	17	4.04	Headworks, Rio Cobre	6.65	3.20	20	7	3.62			
Claremont	9.50	2.05	12	10	3.80	Linstead	6.42	1.38	12	8	4.43			
Albion, St. Ann	8.17	2.09	12	17	4.38	Berkshire Hall	8.40	2.51	22	17	2.40			
Averham Park	8.93	2.10	12	15	4.73	Point Hill	8.86	1.07	1	12	6.07			
						Marlie Hill								
						Worthy Park	7.67	1.32	1	10	3.44			
						Croft Hill	9.33	1.16	11	19				
						Chapelton	5.95	1.94	20	14	3.57			
						Danks Works	6.73	1.44	1	17	4.69			
						Savoy House	6.79	1.23	1	20	4.09			
						Crooked River	9.08	3.50	19	8				
						Trout Hall	10.80	2.10	22	16				
						Frankfield	8.25	1.89	30	13				
						Cave Valley								
Mean	8.96					Mean	6.78							

		APRIL, 1917.							APRIL, 1917.				
WEST-CENTRAL DIVISION.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	SOUTHERN DIVISION.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
			Amount.	Date.						Amount.	Date.		
		In.	In.			In.			In.	In.			In.
Whitney	...	10.28	2.10	14	11	4.98	Morant Point L. H.	...	2.88	0.88	19	13	2.99
Mocho, Clarendon	...	6.10	1.70	14	6	...	Elliott Hill	...	2.62	0.76	1	14	...
Spaldings	...	11.46	2.46	19	17	...	Pleasant Hill	...	1.44	0.58	19	6	...
Baillieston	...	...	...	...	...	...	East Prospect	...	1.66	0.49	14	10	6.33
Brokenhurst	...	5.13	1.70	20	11	5.25	Morant Bay	...	3.22	1.20	14	8	2.55
Christiana	...	11.23	1.55	11	19	8.10	Easington	...	3.08	2.37	14	10	1.73
Chudleigh	...	12.94	3.14	28	18	6.19	Bull Bay	...	1.07	0.35	15	4	0.85
Shooter's Hill	...	8.63	1.60	20	16	...	Bellevue	...	5.80	1.75	3	17	...
Spitzbergen	...	8.56	1.85	19	16	...	Gordon Town	...	5.83	1.45	11	13	3.32
Ken lal, Manchester	...	10.65	2.18	20	15	7.44	Hope Gardens	...	3.93	...	...	...	2.84
Marshall's Pen	...	9.19	1.92	1	16	5.90	King's House Gardens	...	3.07	1.07	18	4	2.48
Mandeville	...	5.92	1.66	3	15	5.96	Melrose	...	2.16	0.82	18	9	...
Carlton, Mandeville	...	5.42	1.86	3	13	5.96	Halfway Tree	...	2.44	0.76	28	6	1.63
The Hill	...	8.15	3.40	20	11	...	Lunatic Asylum	...	1.09	0.42	5	9	1.07
Fairfield, Manchester	...	6.31	1.22	11	15	6.46	Glenmore Road	...	1.95	0.61	5	10	...
Mile Gully	...	...	...	...	...	...	Kingston P. W. Office	...	0.97	0.24	5	13	1.01
Ulster Spring	...	20.96	4.10	20	16	6.20	Plumb Point L. H.	...	2.05	0.70	21	9	0.99
Freeman's Hall	...	17.30	3.05	20	18	...	Ferry	...	...	...	...	...	...
Albert Town	...	14.40	2.82	20	12	6.48	Clifton Pen	...	1.47	0.45	3	5	...
Lowe River	...	25.82	3.75	6	22	5.60	Quarantine Station	...	3.30	2.31	6	5	...
Troy	...	8.65	1.45	3	14	9.62	Spanish Town	...	2.24	1.06	18	6	2.30
Windsor Pen, Trel.	...	12.42	2.40	20	15	6.10	Hog Hole, St. Catherine	...	2.65	1.21	18	5	2.96
Medina	...	12.19	1.91	12	12	...	Hartlands	...	5.06	1.58	20	6	2.25
Wallingford	...	...	...	...	...	...	Belmont, Guanaboa Vale	...	9.98	2.30	20	13	...
Balaclava Police Station	...	11.08	2.12	19	14	9.66	Old Harbour	...	...	...	...	...	...
Siloah	...	8.12	1.75	29	10	9.16	May Pen	...	2.61	0.61	12	7	2.92
Appleton Estate	...	...	...	...	...	...	Hillside	...	...	...	...	...	...
Maggotty	...	10.56	2.95	1	15	9.39	Moreland	...	...	...	...	...	...
Butlers	...	8.33	2.05	1	13	...	Money Musk	...	...	...	...	...	...
Dromilly Pen	...	8.80	2.50	7	8	...	Dunkley's, Vere	...	3.96	1.80	15	7	2.16
Spring Vale	...	6.23	1.00	13	14	5.44	Dry River "	...	3.93	2.32	15	6	...
Garland	...	...	...	...	...	...	Denbigh	...	...	...	...	...	...
Mocho, Catadupa	...	9.90	1.66	19	13	...	Toll Gate	...	8.33	2.00	19	11	...
Springfield, St. Elizabeth	...	7.16	1.30	7	11	...	Woodleigh	...	...	...	...	...	...
Chesterfield, St. James	...	6.55	1.30	10	12	...	New Yarmouth	...	3.91	2.27	15	5	2.31
Catadupa Rly. Station	...	11.62	1.80	2	15	...	Exeter, Vere	...	2.35	1.00	16	7	2.22
Kempshot	...	7.37	1.66	6	17	5.54	Rhymesbury	...	...	...	...	...	...
Cambridge, St. James	...	9.32	2.11	5	16	...	Milk River	...	3.25	1.00	19	8	2.25
Ducketts	...	10.81	2.25	5	14	...	Clarendon Pk. Ry. St.	...	7.86	3.60	1	13	3.90
New Market, Police St.	...	7.22	1.30	12	12	...	Victoria Town	...	4.16	0.90	1	9	3.83
The Bog, New Market	...	...	...	...	...	...	Hog Hole, S. Manch.	...	3.67	1.22	1	9	...
Kew Park	...	7.84	1.86	12	13	...	Stone's Hope	...	3.98	1.38	1	6	4.13
Montpelier	...	7.31	1.84	12	12	...	Newport, Manchester	...	5.45	1.35	1	11	4.94
Knockalva	...	5.94	1.07	12	13	...	Great Valley, Man.	...	2.71	0.83	18	10	4.05
Ramble	...	8.07	2.50	7	10	...	Alligator Pond	...	2.34	0.90	21	7	...
Petersville	...	4.19	2.59	7	10	7.35	Southfield, St. Elizabeth	...	2.26	1.20	3	6	...
Darliston	...	10.28	2.18	30	14	11.40	Lititz	...	6.51	2.31	3	9	...
Bluefields	...	4.11	1.10	30	8	...	Torrington	...	3.71	1.35	1	9	4.53
Whithorn	...	3.13	1.37	7	9	7.98	Bethlehem, St. Eliz.	...	6.08	1.32	19	14	6.30
Water Works Pen	...	3.38	1.00	3	9	...	Santa Cruz	...	12.88	2.29	19	15	9.34
Great Valley, Han.	...	6.48	2.30	20	6	...	Pedro Plains Police St.	...	0.15	0.10	20	2	2.22
Prospect Park	...	...	...	...	...	...	Mountainside	...	4.03	1.25	1	9	...
Blackheath	...	...	...	...	...	...	Black River	...	2.66	0.97	20	6	4.18
Fontabelle, Westm.	...	3.41	0.76	4	10	6.01	Font Hill	...	1.60	0.60	3	4	4.40
Belleisle	...	...	...	...	...	...	Mount Edgecombe	...	1.90	0.52	7	9	5.40
Morgan's Bridge	...	5.43	2.16	20	6	6.14	Sweet River	...	1.50	0.40	7	10	5.70
King's Vale Police St.	...	4.26	0.88	20	8	5.90	Windsor, Sav.-la-mar	...	...	...	...	...	...
Mean	...	9.34	...	...	...	...	Orchard	...	1.74	0.58	7	8	...
							Sav.-la-mar	...	1.45	0.64	7	9	5.29
							Meylersfield	...	...	...	...	...	...
							Little London	...	4.03	1.74	1	6	...
							Retreat	...	1.90	0.60	17	6	5.07
							Negril Point L.H.	...	0.35	0.09	11	5	3.03
							Mean	...	3.21	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

SHOCKS OF EARTHQUAKE IN APRIL, 1917.

DIVISIONAL AND ISLAND RAINFALL.	APRIL.		Date.	Standard Time (Approx.)		Intensity.	Notes: where felt, etc.
	1917.	Average.					
	In.	In.		hr.	min.		
			10	8	45 p.m.	I	Mt. Holstein, E and W. 007, double.
North-Eastern Division	8.96	5.31					
Northern	6.78	3.05					
West-Central	9.34	7.13					
Southern	3.21	3.24					
The Island	7.07	4.68					

The rainfall was fairly uniform over the Island, except at Ulster Spring and Lowe River, where 21 and 26 inches fell, and at the west end of the Island where the rainfall did not exceed an inch.

On the 19th, there was a heavy shower between 4 and 5 p.m. at Alley in the District of Vere when 2.70 inches fell in 40 minutes, there was also a heavy fall of hail: the ground was white with the stones, many of which were larger than pigeons eggs. (Daily Gleaner.)

METEOROLOGICAL RETURNS FOR MARCH, 1917.

STATION.	Eleva- tion.	Bar. Pressure		Temperatures.				Extreme Temperatures.				Dew Point and Humidity.				Rain- fall.			
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Date.	Min.	Date.	Range.	7 a.m.	3 p.m.				
		ft.	in.	in.	°	°	°	°	°	°	°	°	°	°	°		°	in.	
Castleton Gardens	496	..	..	64.5	80.9	85.8	64.1	21.7	90	27th*	57	1st	33	62.6	96	70.9	72	2.86	
Hope Gardens	668	..	30.047	29.943	68.9	82.4	86.1	65.3	18.8	90	22nd	64	3rd*	26	60.0	73	67.4	61	0.17
Hill Gardens	4,900	..	25.314	25.271	58.9	62.6	64.1	53.1	11.0	71	15th*	51	1st*	20	53.2	81	56.8	80	3.36

* And on other days.

MAXWELL HALL,

Government Meteorologist.

Montego Bay P.O.

PARHELIA 90° FROM THE SUN.

On April 10th at about 8 hr. 40 m. a.m., local time, when the Sun's altitude was about 40° , a most unusual phenomenon was seen by the Revd. G. E. Henderson and members of his family near Browns Town, namely, the parhelia or mock-suns due to the intersection of the halo-ring of 90° radius with the mock-sun plane or ring parallel to the horizon.

Parhelia due to the intersection of the halo-ring of 22° radius with the parhelic plane or ring are quite common; in the morning a sheet of thin cirro-stratus will often be seen in Jamaica to produce that halo, and as often as not the halo is cut by the parhelic ring, producing two bright patches showing coloured light on either side of the Sun.

Parhelia may also be similarly formed with the halo-ring of 46° ; but parhelia formed with the halo-ring of 90° have been seen only on a few occasions since the year 1663 when Hevelius, the astronomer, saw the phenomenon at Danzig; his drawing is reproduced in "The Observer's Handbook" issued by the Meteorological Office, London.

Loomis in his "Treatise on Meteorology," published in 1885, says that only three observations of this halo are on record, and that its exact dimensions have not been well determined.

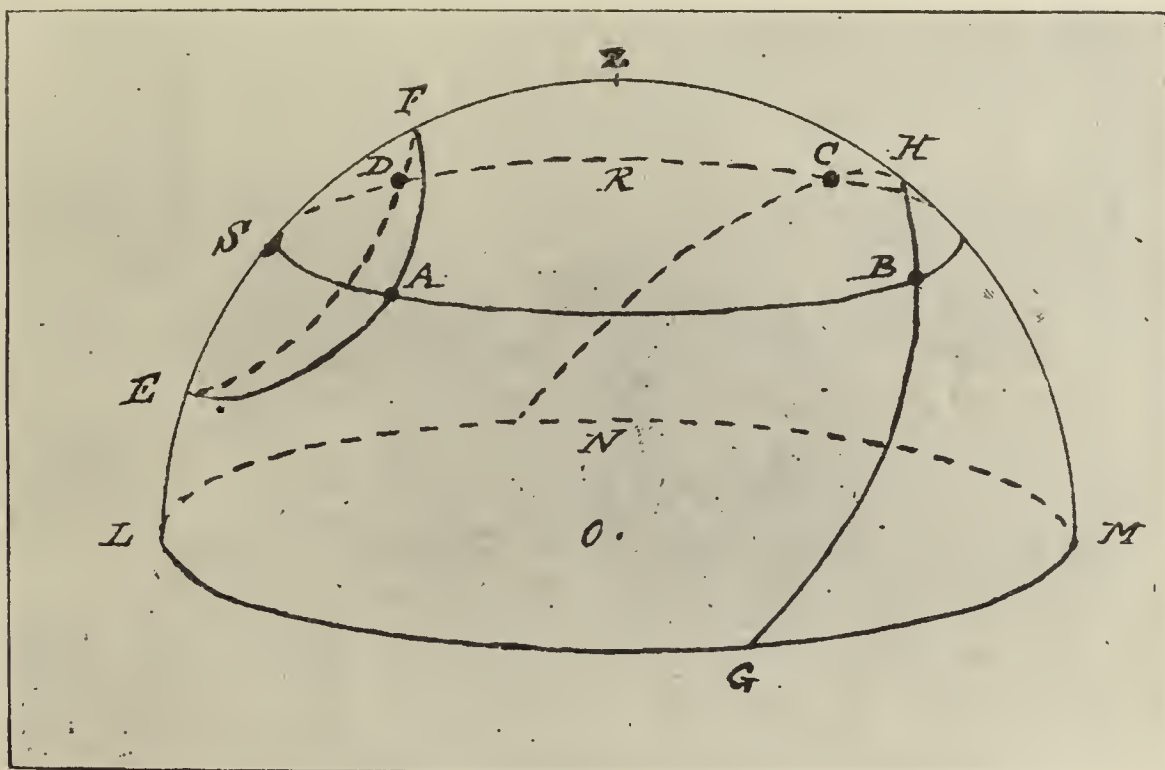
No attempt was made on April 10th to measure anything, but there can be no doubt that the mock-suns due to this halo and the parhelic ring were seen. Mr. Henderson wrote the same day to the *Daily Gleaner*, and to me on the 16th, and a few letters have been exchanged to settle the facts.

At Browns Town there was much thin cirro-stratus about, indeed the sky seems to have been covered with it except to the north; the Sun shone through it surrounded by a coronal ring of about 10° radius, and by the halo-ring of 22° radius, both showing prismatic colours; the mock-suns on either side of the Sun, and at the same altitude as the Sun, were almost of the same size and brilliancy as the Sun itself.

As the Sun was then nearly above the eastern point of the horizon, one of these mock-suns was about ENE, and the other ESE; the latter had a broad band of light extending about 10° along the parhelic ring, and away from the Sun.

Following on round the horizon there was another mock-sun in the SW, and another in the NW, but these were both much fainter than the two towards the east; they were all about the same altitude above the horizon.

This unusual display lasted about half an hour, when a heavy cumulus cloud blotted it out.



In this figure O is the place of the observer and L, G, M, N his horizontal plane; S is the Sun, E, A, F, D the halo-ring of 22° radius and G, B, H, C the halo-ring of 90° radius; and S, A, B, C, D the parhelic or mock-sun ring; A and D are the two bright mock-suns towards the east, and B and C are the two faint mock-suns towards the west.

Now the latitude of the place is $18^\circ 24' N$, the declination of the Sun was $7^\circ 52' N$, and the hour angle was about 50° ; hence the azimuth of the Sun was 85° from N towards E , the azimuth of B was 50° from N towards W , and the azimuth of C was 40° from S towards W ; the latter azimuths agreeing with the observed positions NW and SW as nearly as could have been expected.

M. H.
1.5.17.

Meteorological Observations: Morant Point Light House. Mean Results for the year 1916. Elevation 8 ft.

Month.	Bar Pressure.		Temperature.						Extremes for Month.			Dewpoint and humidity.			Rain-fall.	Miles of Wind per diem.	
	7 a.m.	3 p.m.	Mean.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Min.	Range.	7 a.m.	3 p.m.				
													°	°			°
January	30.045	29.994	78.6	78.7	80.2	81.3	76.1	5.2	82.0	72.5	9.5	71.4	78	70.3	72	1.25	401
February	30.004	29.954	76.6	76.1	78.7	80.6	73.0	7.6	83.0	65.5	17.5	68.4	77	69.9	74	7.30	307
March	29.954	29.911	76.6	75.6	79.7	81.3	71.9	9.4	83.0	63.0	20.0	67.2	75	68.5	69	1.62	272
April	29.965	29.927	78.6	78.2	81.4	83.4	73.6	9.8	86.0	66.0	20.0	70.8	79	71.1	72	3.17	217
May	29.941	29.893	79.4	77.5	82.4	84.4	75.5	8.9	87.5	69.0	18.5	74.3	90	78.3	88	6.97	203
June	29.938	29.913	82.5	82.3	84.4	86.4	78.8	7.6	88.0	72.5	15.5	73.6	75	73.5	70	5.60	274
July	29.936	29.918	81.5	82.1	83.7	85.8	76.6	9.2	89.0	70.0	19.0	73.6	78	73.6	72	14.29	271
August	29.947	29.911	81.9	82.0	83.4	86.0	78.1	7.9	88.0	71.0	17.0	74.0	77	73.4	72	9.68	345*
September	29.918	29.871	81.7	81.5	84.7	86.7	76.0	10.7	88.0	69.0	19.0	74.0	78	73.3	69	3.44	..
October	29.840	29.794	79.9	79.5	82.1	85.1	75.1	10.0	87.0	71.5	15.5	73.6	82	72.8	74	21.51	..
November	29.890	29.850	79.5	79.6	81.4	83.5	75.5	8.0	86.0	72.0	14.0	72.4	79	71.6	72	13.35	..
December	29.991	29.950	78.2	76.9	80.4	81.8	75.6	6.2	84.0	68.0	16.0	70.3	80	68.7	68	1.59	..
Means	29.947	29.907	79.6	79.2	81.9	83.9	75.6	8.3	86.0	69.2	16.8	72.0	79	72.1	73	..	209
Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	89.80	..

* For 15½ days only.

Mean results, *continued.* Morant Point Light House.

Month.	Wind from and miles per hour.		Clouds in tenths.						Weather Conditions.			
			Lower.		Middle.		Upper.					
	7 a.m.		3 p.m.		7 a.m. 3 p.m.		7 a.m. 3 p.m.					
					7 a.m.	3 p.m.	7 a.m.	3 p.m.				
January	..	NE	21.0	NE	19.0	2.9	2.4	1.2	0.9	0.7	0.6	Strong dry NE winds.
February	..	NNE	16.0	NE	14.0	4.1	3.7	1.6	1.7	0.3	0.4	Bar. fell .1 on 23rd, 24th, 25th for NW gale.
March	..	NE	14.0	NE	13.0	2.8	1.6	1.1	1.8	0.9	0.5	Dry NE winds.
April	..	NE	12.0	E	11.0	3.1	1.9	1.5	1.8	1.3	1.2	Early part month fine and dry, latter part rainy.
May	..	NE	12.5	E	11.0	3.4	2.2	1.3	1.6	1.1	2.0	Bar. fell to .824 on 13th p.m. indicating SE wind.
June	..	NE	13.0	ENE	14.5	2.2	1.0	1.5	2.5	1.3	2.1	Latter part of month equally with TL.
July	..	ENE	15.0	ENE	14.0	2.2	2.1	2.1	2.0	1.6	1.5	Cloudy with rain squalls and shifty wind.
August	..	ENE	16.0	ENE	16.0	2.5	2.4	1.0	1.6	2.5	1.5	Hurricane 14th and 15th, another threatened on 30th but passed off.
September	..	NNE	8.5	ENE	7.5	1.9	1.0	1.4	2.4	1.1	0.8	
October	..	E	9.0	E	10.0	4.4	3.6	0.9	1.8	1.3	1.0	Flood rains.
November	..	NE	18.0	ENE	17.8	5.5	4.6	0.4	0.7	0.7	0.7	Flood rains early part of month.
December	..	NE	16.0	NE	16.0	3.0	2.1	0.6	1.4	0.5	0.0	Dry and fine.
Means	..	NE	14.3	NE	13.6	3.4	2.4	1.2	1.7	1.1	1.0	



JAMAICA

WEATHER REPORT

FOR THE MONTH OF

MAY, 1917.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky ; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min	Date.	Range
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.957	29.923	79.3	83.1	84.7	74.6	10.1	87.5	14	64.0	11	19.5
Kingston ..	24	29.936	29.890	77.2	83.5	88.3	72.5	15.8	92.7	25	69.6	1	23.1
Negril Point Light House ..	33	29.938	29.890	78.5	83.1	86.3	72.6	13.7	90.2	25	68.6	2	21.6
Castleton Gardens ..	496	..	..	68.3	82.2	86.5	67.4	19.1	91	27	63	4	28
Hope Gardens† ..	668	29.984	29.847	77.7	85.4	86.5	68.9	17.6	90	24*	67	3*	23
Bavinton, Stony Hill** ..	1,349	29.946	29.887	70.4	77.9	81.4	66.8	14.6	85.5	27*	64.0	1*	21.5
Stony Hill Indus. School ..	1,400	..	..	70.4	77.5	80.7	67.7	13.0	86	25	64	2*	22
Hill Gardens ..	4,900	25.261	25.298	61.7	64.1	68.0	56.0	12.0	72	25*	54	2*	18

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.					7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.				
	ft.	°	°	°	°	in.	miles					L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	8	71.3	76	70.9	79	3.00	260	NE	14	E	14	3.1	1.4	0.6	1.8	1.2	0.5
Kingston ..	24	69.4	77	71.7	68	1.99	204	NNE	5.3	SE	14.3	0.9	0.9	0.6	2.5	2.8	0.5
Negril Point Light House† ..	33	70.0	76	72.2	70	3.75	230	ENE	8.3	SSE	13.9	0.7	1.4	1.5	1.6	4.9	0.8
Castleton Gardens ..	496	66.3	93	72.0	72	9.87	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	64.0	62	68.9	62	4.68	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill ..	1,349	66.5	88	68.7	74	8.90	..	N	2.4	SSW	6.0	1.6	0.9	0.6	3.8	2.3	0.6
Stony Hill Indus. School ..	1,400	65.7	85	68.4	73	8.46	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	58.2	87	61.4	90	8.78	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
‡ Negril Point Light House. Wind 11 p.m. E. 9.0
** Bavinton, Stony Hill. Mean Min. temp. on grass 63.6
Earth temp. 1 ft. below surface 77.2
" 4ft. " " 75.6

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

MAY, 1917.						MAY, 1917.					
NORTH-EASTERN DIVISION.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.						
		Amount	Date.								
	In.	In.			In.						
Manchioneal	14.18	5.72	18	17	14.77	Bryan Castle	2.05	1.35	15	7	5.49
Spring Valley, Portland	12.00	5.12	18	11		Braco	2.10	1.00	15	5	4.90
Bath	7.28	1.95	19	14	12.75	Arcadia	3.10	0.60	16	4	4.98
Priestman's River	13.37	8.21	18	13		Lancaster	3.72	1.35	20	9	5.40
Moore Town	9.76	2.20	18	9	16.96	Harmony Hall	3.46	1.90	20	9	4.88
Port Antonio	10.39	3.42	18	15	16.66	Vale Royal	2.54	1.16	15	5	6.34
Fellowship	9.15	2.81	18	16	20.85	Colchis Pen	...	...	...	...	...
Johnson River Bridge	5.64	1.85	15	13	9.52	Swanswick	4.15	1.60	15	6	6.64
Shrewsbury	12.95	4.10	18	9	11.94	Georgia	3.45	1.10	15	8	5.77
Cedar Valley, St. Thos.	6.27	3.40	15	11	9.33	Long Pond	2.63	1.20	15	5	5.30
Hope Bay	10.05	4.05	18	14		Duncans	...	...	...	...	...
Moy Hall, St. Thos.	...	...	...	...		Hyde Hall	2.90	1.20	15	6	5.80
Brooklodge	8.96	4.41	15	10		Steelfield	2.73	1.12	15	4	5.86
Lennox	12.05	4.00	18	13		Etingdon	2.65	1.95	15	3	4.43
Farm Hill	10.89	5.20	15	8	6.57	Lottery	2.40	1.50	15	4	6.35
Hill Gardens	8.78	2.86	15	15	10.71	Falmouth	2.39	1.05	15	6	5.19
Buff Bay	8.21	3.85	18	10	8.15	Florence Hall	...	...	...	...	...
Vinery	7.04	1.80	18	9	6.47	Good Hope	4.20	1.50	8	5	...
Windsor Castle, Port.	4.40	2.40	18	5		Unity	6.48	1.78	21	8	...
Greenvale, Portland	15.98	4.10	18	14	8.01	Kent	2.53	1.97	15	5	5.43
Mt. Holstein	9.72	2.81	15	17	8.14	Canaan	5.31	2.10	14	10	7.55
Irish Town	9.27	2.34	15	11	5.27	Content	2.66	1.32	15	4	6.86
Rose Hill	16.27	4.25	29	11		Bellfield	...	...	...	...	...
Hardware Gap	12.00	...	...	...	12.57	Guilsbro	7.91	1.61	9	19	8.61
Stony Hill Ind. School	8.46	2.53	15	15	9.73	Glasgow*	2.47	0.87	15	4	...
Castleton Gardens	9.87	1.84	31	17	12.04	Moor Park	4.25	1.75	21	6	6.69
Lawrence Tavern	7.18	2.40	15	14	9.12	Rose Hall	...	...	...	...	...
Cedar Valley, Red Hills	8.05	2.21	12	9		Running Gut	...	...	...	...	...
Zion Hill	8.64	2.63	15	14		Cinnamon Hill	...	...	...	...	...
Agualta Vale	9.61	4.02	18	9	4.55	Success	...	...	...	...	...
Water Valley	12.92	4.98	21	13	7.86	Spring Estate	2.84	...	...	...	4.96
Albany, Ry. Station	...	...	...	...		Montego Bay	4.81	1.15	15	9	7.60
Platfield	...	...	...	...		Catherine Hall	5.35	1.24	15	7	8.69
Richmond, St. Mary	5.64	2.26	15	6	7.54	Retirement	5.32	1.70	21	11	...
Highgate	6.72	2.80	15	8		King Gate	6.59	1.71	15	10	9.18
Hampstead, St. Mary	8.48	2.03	15	3	6.18	Blue Hole	9.70	4.50	15	9	...
Guy's Hill	5.03	2.43	15	6		Haughton Court	8.25	2.65	15	9	8.03
Lucky Hill	5.24	1.44	6	10		Lucea	6.54	1.60	15	9	8.09
Rio Hoe	4.80	1.88	15	8	8.48	Green Island	6.66	2.75	15	10	...
Unity Valley	6.91	2.25	15	14	9.99	CENTRAL SUB-DIVISION.					
Moneague	6.00	2.55	15	12	8.26	Rio Magno	4.85	2.50	15	3	...
Claremont	5.96	2.00	15	11	7.34	Headworks, Rio Cobre	10.02	3.75	31	11	7.71
Albion, St. Ann	9.93	2.21	15	13	8.46	Linstead	8.00	2.66	19	12	9.64
Averham Park	3.16	0.85	19	8	8.25	Berkshire Hall	7.72	2.59	15	12	5.43
Mean	8.84	...	...	...	...	Point Hill	7.50	2.75	15	7	12.80
						Marlie Hill	9.84	3.30	15	8	...
						Worthy Park	3.69	1.61	15	6	8.17
						Croft Hill	8.35	2.07	15	8	...
						Chapelton	8.98	2.25	15	10	8.47
						Danks Works	8.90	2.39	15	12	9.22
						Savoy House	9.35	2.75	15	11	8.03
						Crooked River	...	...	...	...	...
						Trout Hall	10.60	2.10	15	8	...
						Frankfield	9.51	1.84	10	9	...
						Cave Valley	...	...	...	...	...
						Mean	4.62	...	...	...	...

* Gauge leaking.

		MAY, 1917.							MAY, 1917.						
WEST-CENTRAL DIVISION.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	SOUTHERN DIVISION.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		
			Amount.	Date.						Amount.	Date.				
		In.	In.			In.			In.	In.			In.		
Whitney	...	7.75	2.35	16	10	11.75			Morant Point L. H.	...	3.00	0.63	19	10	10.76
Mocho, Clarendon	...	3.48	1.90	15	2	12.38			Elliott Hill	...	9.45	2.15	20	19	...
Spaldings	...	15.43	3.05	12	19	...			Pleasant Hill	...	9.45	2.19	18	13	...
Baillieston			East Prospect	...	5.48	2.05	19	10	7.74
Brokenhurst	...	8.64	1.75	20	15	10.02			Morant Bay	...	3.37	0.96	19	14	8.00
Christiana	...	19.48	4.42	12	15	11.50			Easington	...	4.86	3.00	15	10	6.33
Chudleigh	...	14.61	2.30	12	16	8.38			Bull Bay	...	2.25	1.25	15	4	4.13
Shooter's Hill	...	8.44	1.87	20	15	...			Bellevue	...	11.23	4.73	15	15	...
Spitzbergen	...	16.94	4.53	12	15	...			Gordon Town	...	7.23	2.40	15	9	8.23
Kendal, Manchester	...	10.12	3.84	20	8	10.16			Hope Gardens	...	4.68	...	...	...	6.38
Marshall's Pen	...	9.31	2.29	15	16	10.02			King's House Gardens	...	3.85	1.80	10	4	7.32
Mandeville	...	9.37	2.45	15	20	11.17			Melrose	...	3.96	1.66	10	10	...
Carlton, Mandeville	...	10.41	2.85	15	16	11.17			Halfway Tree	...	3.66	1.35	10	8	4.87
The Hill	...	10.16	5.65	20	10	...			Lunatic Asylum	...	2.99	1.93	15	7	3.57
Fairfield, Manchester	...	6.68	2.15	15	20	7.87			Glenmore Road	...	2.66	1.73	15	7	...
Mile Gully			Kingston P. W. Office	...	1.99	1.40	15	9	4.63
Ulster Spring	...	15.75	3.05	15	13	11.61			Plumb Point L. H.	...	3.56	1.65	15	7	4.80
Freeman's Hall	...	14.80	2.80	3	16	...			Ferry	...	...	...	...	...	...
Albert Town	...	9.45	1.55	15	12	10.55			Clifton Pen	...	...	...	...	...	...
Lowe River	...	16.30	2.75	17	12	8.58			Quarantine Station	...	3.37	1.92	15	4	...
Troy	...	14.10	3.10	28	13	17.69			Spanish Town	...	3.92	1.45	15	3	5.77
Windsor Pen, Trel.	...	5.57	1.60	15	16	10.96			Hog Hole, St. Catherine	...	5.34	1.90	31	5	6.79
Medina	...	11.91	2.14	15	11	...			Hartlands	...	4.47	1.65	13	5	4.34
Wallingford			Belmont, Guanaboa Vale	...	6.00	1.98	19	11	...
Balaclava Police Station	...	17.64	2.49	15	16	14.41			Old Harbour	...	2.12	1.20	19	2	5.78
Siloah	...	19.35	3.20	11	14	15.27			May Pen	...	4.78	2.45	15	8	6.84
Appleton Estate			Hillside	...	...	...	...	...	...
Maggotty	...	14.62	2.31	29	16	14.85			Moreland	...	3.44	1.83	15	4	8.35
Butlers	...	13.98	2.85	15	15	...			Money Musk	...	...	...	...	...	...
Dromilly Pen	...	7.27	2.40	21	6	...			Dunkley's, Vere	...	3.70	1.90	20	8	4.50
Spring Vale	...	3.60	1.01	16	17	13.57			Dry River	...	3.04	1.37	20	5	...
Garland	...	11.78	1.71	15	14	...			Denbigh	...	...	...	...	...	...
Mocho, Catadupa	...	16.72	2.04	15	21	...			Toll Gate	...	5.50	2.15	15	7	...
Springfield, St. Elizabeth	...	11.62	1.90	15	16	...			Woodleigh	...	...	...	...	...	...
Chesterfield, St. James			New Yarmouth	...	2.53	1.51	15	3	4.86
Catadupa Rly. Station	...	17.86	3.66	9	20	16.15			Exeter, Vere	...	2.30	0.80	15	6	4.95
Kempshot	...	8.56	1.65	21	15	10.37			Rhymesbury	...	...	...	...	...	...
Cambridge, St. James	...	11.14	2.00	12	17	...			Milk River	...	...	...	...	...	...
Ducketts			Clarendon Pk. Ry. St.	...	7.95	1.90	15	11	5.16
New Market, Police St.	...	9.72	1.94	15	15	...			Victoria Town	...	4.56	2.50	16	5	9.18
The Bog, New Market	...	14.66	3.79	1	14	...			Hog Hole, S. Manch.	...	8.82	1.93	31	8	...
Kew Park	...	15.66	2.12	15	24	12.91			Stone's Hope	...	5.22	1.43	31	8	9.30
Montpelier	...	7.40	1.56	15	15	...			Newport, Manchester	...	5.96	2.30	20	15	8.37
Knockalva	...	12.87	2.00	15	21	...			Great Valley, Man.	...	3.12	1.06	15	8	6.99
Ramble	...	17.10	2.40	11	15	...			Alligator Pond	...	2.45	0.96	15	5	5.86
Petersville	...	8.31	3.07	2	16	12.19			Southfield, St. Elizabeth	...	3.64	1.57	15	6	...
Darliston	...	15.37	1.95	14	21	16.97			Lititz	...	4.17	1.41	15	7	...
Bluefields	...	6.24	0.92	14	12	11.70			Torrington	...	7.44	2.60	15	9	6.76
Whithorn	...	5.85	1.36	15	16	14.88			Bethlehem, St. Eliz.	...	7.01	2.35	15	11	7.64
Water Works Pen	...	7.73	1.50	8	15	...			Santa Cruz	...	14.58	2.45	15	15	12.81
Great Valley, Han.	...	9.33	3.45	8	11	14.22			Pedro Plains Police St.	...	2.93	1.60	15	5	4.12
Prospect Park			Mountainside	...	4.24	2.36	15	9	...
Blackheath			Black River	...	5.19	1.61	15	9	7.42
Fontabelle, Westm.	...	12.74	3.23	25	12	9.36			Font Hill	...	5.25	1.90	15	9	8.84
Belleisle			Mount Edgecombe	...	6.24	2.34	15	12	8.23
Morgan's Bridge	...	12.36	3.00	15	13	12.36			Sweet River	...	4.96	1.80	15	14	9.81
King's Vale Police St.	...	5.34	0.91	27	12	9.76			Windsor, Sav.-la-mar	...	6.56	1.85	15	14	9.46
									Orchard	...	6.04	1.86	15	17	...
									Sav.-la-mar	...	6.95	1.75	15	15	9.29
									Meylersfield	...	...	...	...	...	...
									Little London	...	4.65	1.22	15	13	...
									Retreat	...	7.77	2.85	9	13	9.09
									Negril Point L.H.	...	3.75	1.19	26	12	5.88
Mean	...	11.13	...	...	...	...			Mean	...	4.81	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

SHOCKS OF EARTHQUAKE IN MAY, 1917.

DIVISIONAL AND ISLAND RAINFALL.	MAY.		Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
	1917.	Average.				
	In.	In.				
North-Eastern Division	... 8.84	10.82	30	hr. min. 9 40 p.m.	1	Mt. Holstein, E and W. '003 slight.
Northern	... 4.62	7.07				
West-Central	... 11.13	12.49				
Southern	... 4.81	6.94				
The Island	... 7.35	9.33				

At Christiana and Siloah the rainfall was as much as 19 inches; the lowest was 2 inches at Kingston.

A NORTHER.

On the 14th a small depression appeared off the N.W. of the Island; on the 15th it moved on a S.E. course towards Jamaica; between 3 and 5 p.m. one centre passed over the Negril Pt. Light-house; between 9 and 11.30 p.m. another centre passed over Kempshot, moving on a course parallel to the first. The fall of pressure below mean was 0.16; the average wind was about 12 miles an hour, and the highest gust was 40 miles an hour. As soon as the centres had passed, the wind got round to the N. and remained in the N. or N.E. for several days, with the bar. pressure above the average.

MAXWELL HALL,

Government Meteorologist.

Montego Bay P.O.

JR



JAMAICA

WEATHER REPORT

FOR THE MONTH OF
JUNE, 1917.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min	Date.	Range
		in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House	8	29.977	29.955	81.4	83.6	85.2	76.3	8.9	87.0	16*	71.0	2*	16.0
Kingston	24	29.954	29.925	75.9	83.9	88.6	72.8	15.8	94.2	12	70.6	3	23.6
Negril Point Light House	33	29.955	29.927	77.9	83.8	86.4	72.5	13.9	90.5	28	69.6	12	20.9
Castleton Gardens	496	..	..	70.0	82.1	86.8	69.3	17.5	91	20*	67	20*	24
Hope Gardens†	668	..	..	74.0	82.5	87.9	69.6	18.3	92	12*	68	1*	24
Bavinton, Stony Hill**	1,349	29.972	29.925	70.5	77.9	82.1	67.3	14.8	88.0	20	65.0	2*	23.0
Stony Hill Indus. School	1,400	..	..	70.9	77.8	81.5	67.2	14.3	87	20*	64	3*	23
Hill Gardens	4,900	..	..	63.1	65.5	68.9	57.7	11.2	72	22	56	1*	17

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall. in.	Wind per diem. miles	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.	7 a.m.	3 p.m.			7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.
		°	°	°	°			m.	m.	L.	M.	U.	L.	M.	U.	L.	U.
Morant Pt. Light House	8	73.2	79	72.7	70	6.97	270	NE	14.9	E	13.4	3.0	1.0	2.3	2.3	1.9	1.5
Kingston	24	69.7	81	71.5	66	3.24	201	N	4	SE	15	0.6	2.2	4.4	3.7	1.8	2.0
Negril Point Light House†	33	71.3	80	74.6	74	7.55	183	ENE	6.8	SE	10.2	1.3	0.7	6.2	2.7	5.3	0.9
Castleton Gardens	496	68.7	96	73.4	74	9.33	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	..	..	70.6	67	3.61	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	67.3	90	69.8	76	7.97	..	N	1.8	SSE	4.1	1.8	0.9	3.0	4.3	2.7	0.6
Stony Hill Indus. School	1,400	67.8	89	69.9	76	8.24	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	4,900	60.1	89	61.8	83	8.11	..	..	..	..	..	..	..	..	..	..	..

* and on other days.
† Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
‡ Negril Point Light House. Wind 11 p.m. E. 6.4
** Bavinton, Stony Hill. Mean Min. temp. on grass 64.2
Earth temp. 1 ft. below surface 78.5
4ft. " " 76.9

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	JUNE, 1917.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount	Date.		
	In.	In.			In.
Manchioneal	7.55	1.77	5	18	10.20
Bath	11.46	2.10	8	18	13.29
Priestman's River	8.18	1.31	4	17	...
Moore Town	26.21	7.50	29	11	25.57
Port Antonio	16.71	3.03	29	21	17.96
Fellowship	20.89	6.20	29	21	22.43
Johnson River Bridge	7.86	2.57	8	18	19.17
Shrewsbury	27.60	11.50	29	15	12.07
Cedar Valley, St. Thos.	11.02	2.98	29	10	19.90
Hope Bay†	23.16	14.05	29	18	...
Moy Hall, St. Thos.	...	...	...	...	...
Brooklodge	7.36	3.30	29	14	...
Lennox	24.85	17.00	29	17	...
Farm Hill	10.70	5.70	29	8	6.78
Hill Gardens	8.11	2.92	29	14	8.11
Buff Bay	20.12	9.39	29	17	7.50
Vinery	11.21	2.20	6	16	4.05
Windsor Castle, Portl.	8.80	5.15	30	5	...
Greenvale, Portland	11.09	1.77	4	16	4.93
Mt. Holstein	8.80	1.00	10	21	8.16
Irish Town	5.64	1.60	29	8	4.97
Rose Hill	9.21	1.80	29	11	...
Hardware Gap	7.50	...	...	...	7.86
Stony Hill Ind. School	8.24	2.06	13	17	7.47
Castleton Gardens	9.46	2.45	30	10	9.93
Lawrence Tavern	6.60	1.00	29	12	7.48
Cedar Valley, Red Hills	3.68	1.70	29	6	...
Zion Hill	15.15	2.50	9	21	...
Annotto Bay	7.45	1.29	2	18	5.12
Agualta Vale	7.45	1.29	2	18	3.69
Water Valley	7.77	1.45	1	16	5.63
Albany, Ry. Station	...	...	...	...	...
Platfield	...	...	...	...	...
Richmond, St. Mary	9.34	1.30	15	16	5.93
Highgate	6.75	1.45	2	14	...
Hampstead, St. Mary	7.07	1.75	1	15	4.62
Guy's Hill	10.90	2.20	5	12	...
Lucky Hill	7.35	1.25	8	13	...
Rio Hoe	9.87	1.72	8	17	9.11
Unity Valley	15.89	3.15	9	18	8.56
Moneague	15.46	2.89	10	19	8.34
Claremont	7.00	2.40	5	10	6.43
Albion, St. Ann	7.10	1.33	7	18	6.97
Averham Park	5.61	0.86	15	13	6.31
Mean	11.22	...	...	...	...

		JUNE, 1917.				
NORTHERN DIVISION.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average
			Amount.	Date.		
		In.	In.			
Port Maria	...	5.46	1.22	1	15	5.53
Ocho Rios	...	5.25	1.45	5	11	5.20
Bogue, Ocho Rios	...	4.83	0.90	3	13	...
Rockfield	...	5.46	1.80	4	15	...
Drax Hall	...	3.88	0.60	29	13	5.16
Liberty Hill	...	5.04	1.00	5	12	4.12
St. Ann's Bay	...	3.64	0.60	6	15	4.30
Seville	...	4.09	0.80	4	9	4.90
Richmond Estate	...	...	...	...	...	...
Llandovery	...	5.06	1.70	6	5	...
Runaway Bay	...	4.39	1.33	6	9	...
Brown's Town	...	7.28	0.73	10	16	4.74
Alexandria	...	8.12	2.83	10	10	...
Chewmagna, St. Ann	...	...	...	...	...	...
Home Castle	...	6.20	1.80	6	15	4.48
Richmond Pen	...	...	...	...	...	...
Mahogany Hall	...	9.69	3.84	6	16	6.02
Barnstaple	...	8.22	3.00	6	7	...
Brampton Bryan	...	...	...	...	...	...
Bryan Castle	...	2.26	1.30	6	7	3.63
Braco	...	2.70	1.50	6	6	3.26
Arcadia	...	4.45	2.20	6	6	4.46
Lancaster	...	4.47	1.80	6	7	3.54
Harmony Hall	...	3.99	2.00	6	11	3.03
Vale Royal	...	3.75	1.80	6	10	4.69
Colchis Pen	...	4.95	1.35	6	15	5.11
Swanswick	...	5.55	1.75	6	13	4.69
Georgia	...	3.64	1.95	6	11	3.92
Long Pond	...	4.63	1.88	6	12	5.11
Duncans	...	...	...	...	...	...
Hyde Hall	...	5.90	2.70	6	12	4.86
Steelfield	...	3.33	1.95	6	6	4.40
Etingdon	...	3.02	1.70	6	6	4.54
Lottery	...	4.85	2.10	6	9	4.14
Falmouth	...	1.70	0.95	6	7	2.88
Florence Hall	...	1.23	0.61	6	3	...
Good Hope	...	6.42	2.20	6	12	...
Unity	...	13.46	3.91	6	16	...
Kent	...	3.87	2.25	6	6	3.63
Canaan	...	10.50	3.72	6	15	7.76
Content	...	8.08	1.92	6	11	4.81
Bellfield	...	...	...	...	...	...
Guildsbro	...	14.71	3.22	4	24	6.68
Glasgow	...	7.40	2.40	6	11	...
Moor Park	...	...	...	...	...	...
Rose Hall	...	...	...	...	...	...
Running Gut	...	...	...	...	...	...
Cinnamon Hill	...	...	...	...	...	...
Success	...	...	...	...	...	...
Spring Estate	...	3.59	2.26	6	2	3.53
Montego Bay	...	8.93	2.90	6	15	7.19
Catherine Hall	...	9.75	2.95	6	15	7.30
Retirement	...	12.14	3.75	6	19	...
King Gate	...	9.24	3.04	6	17	9.92
Blue Hole	...	14.08	4.13	7	11	...
Haughton Court	...	11.45	5.05	6	12	9.13
Lucea	...	12.43	5.00	6	12	8.76
Green Island	..	19.85	5.00	6	18	...
CENTRAL SUB-DIVISION.						
Rio Magno	...	15.56	2.50	5	11	...
Headworks, Rio Cobre	...	2.86	1.28	13	11	6.16
Linstead	...	6.39	1.40	24	18	...
Berkshire Hall	...	8.37	1.30	7	12	8.65
Point Hill	...	11.04	3.00	17	7	...
Marlie Hill	..	11.19	2.24	18	13	...
Worthy Park	...	5.43	1.25	23	11	7.19
Croft Hill	...	5.42	1.16	15	14	...
Chapelton	...	3.87	0.90	2	14	7.56
Danks Works	...	3.36	0.67	2	15	8.05
Savoy House	...	3.98	0.87	2	17	9.18
Crooked River	...	...	...	...	...	...
Trout Hall	...	9.64	1.03	13	21	...
Frankfield	...	5.65	0.88	24	15	...
Cave Valley	—	...	...	...	...	...
Mean	—	5.74	...	...	...	...

†Gauge overflowed between 1.30 and 4 p.m.

		JUNE, 1917.							JUNE, 1917.				
WEST-CENTRAL DIVISION.		Greatest fall in 24 hours.					SOUTHERN DIVISION.		Greatest fall in 24 hours.				
		Total Fall.	Amount.	Date.	Days on which 0.01 or more fell.	Average.			Total fall.	Amount.	Date.	Days on which 0.01 or more fell.	Average.
		In.	In.			In.			In.	In.			In.
Whitney	...	...	...	...	...	...	Morant Point L. H.	...	6.97	2.14	5	15	7.12
Mochy, Clarendon	...	3.45	1.70	2	4	9.97	Elliott Hill	...	7.84	1.61	8	20	...
Spaldings	...	7.56	1.12	21	16	...	Pleasant Hill	...	8.05	1.67	7	16	...
Baillieston	...	...	...	...	...	...	East Prospect	...	11.06	2.40	1	15	7.27
Brokenhurst	...	5.77	1.20	13	17	13.86	Morant Bay	...	7.29	1.55	2	15	10.19
Christiana	...	7.33	1.04	5	14	8.16	Easington	...	8.85	2.03	29	9	10.28
Chudleigh	...	7.02	0.92	7	19	6.05	Bull Bay	...	2.70	1.26	29	5	5.41
Shooter's Hill	...	5.66	0.93	2	18	...	Bellevue	...	7.32	2.31	6	15	...
Spitzbergen	...	4.76	0.99	29	15	...	Gordon Town	...	6.65	1.50	29	5	5.88
Kendal, Manchester	...	5.09	1.35	1	6	10.21	Hope Gardens	...	3.61	...	...	...	5.55
Marshall's Pen	...	6.45	1.02	1	15	8.40	King's House Gardens	...	4.17	2.00	29	3	5.16
Mandeville	...	6.26	1.13	28	21	10.07	Melrose	...	4.54	2.63	29	7	...
Carlton, Mandeville	...	9.02	1.86	7	17	10.07	Halfway Tree	...	3.92	1.77	29	4	4.58
The Hill	...	4.00	0.95	2	10	...	Lunatic Asylum	...	3.00	2.30	29	5	5.90
Fairfield, Manchester	...	11.51	3.78	7	23	9.08	Glenmore Road	...	4.16	2.26	29	9	...
Mill Gully	...	...	...	...	...	...	Kingston P. W. Office	...	3.24	1.82	29	7	4.38
Ulster Spring	...	12.62	3.70	6	12	5.59	Plumb Point L. H.	...	2.60	1.35	29	8	4.65
Freeman's Hall	...	7.23	1.35	9	13	...	Ferry	...	...	...	...	...	...
Albert Town	...	7.25	1.70	8	6	6.10	Clifton Pen	...	4.91	2.15	29	6	...
Lowe River	...	12.54	1.82	4	12	4.54	Quarantine Station	...	4.40	2.00	29	4	...
Troy	...	12.28	3.50	6	14	7.77	Spanish Town	...	2.32	1.04	29	5	...
Windsor Pen, Trel.	...	14.03	3.36	6	18	9.45	Hog Hole, St. Catherine	...	...	...	...	...	...
Medina	...	4.25	1.07	7	10	...	Hartlands	...	2.70	1.70	29	4	...
Wallingford	...	9.84	2.40	15	15	...	Belmont, Guanaboa Vale	...	9.25	2.00	29	14	...
Balaclava Police Station	...	7.30	1.11	27	15	4.98	Old Harbour	...	2.47	1.70	30	3	...
Siloah	...	7.95	1.70	10	10	4.80	May Pen	...	5.12	2.54	29	12	7.66
Appleton Estate	...	9.13	1.83	10	16	7.20	Happy Hut	...	4.40	2.70	29	6	...
Maggotty	...	9.16	2.24	10	14	6.35	Hillside	...	6.34	2.20	29	6	8.76
Butlers	...	10.21	1.15	7	19	...	Moreland	...	5.13	1.95	20	6	4.25
Dromilly Pen	...	...	...	...	...	...	Money Musk	...	...	...	...	...	...
Spring Vale	...	11.91	2.60	7	13	11.31	Dunkley's, Vere	...	7.44	2.76	2	9	11.05
Garland	...	13.23	1.69	4	20	...	Dry River	...	8.92	2.48	9	7	...
Mochy, Catadupa	...	16.35	1.84	8	24	...	Denbigh	...	5.50	2.75	29	4	6.01
Springfield, St. Elizabeth	...	7.33	1.75	3	14	...	Toll Gate	...	3.67	1.15	29	13	...
Chesterfield, St. James	...	20.00	3.10	7	23	...	Woodleigh	...	5.30	3.30	29	4	...
Catadupa Rly. Station	...	16.53	3.40	9	25	10.05	New Yarmouth	...	7.07	1.92	2	8	7.16
Kempshot	...	13.12	2.86	6	21	9.29	Exeter, Vere	...	...	...	...	...	...
Cambridge, St. James	...	16.41	2.46	9	24	...	Rhymesbury	...	...	...	...	...	...
Ducketts	...	23.78	4.00	9	26	...	Milk River	...	4.96	1.06	29	7	10.55
New Market, Police St.	...	6.35	1.28	18	13	...	Clarendon Pk. Ry. St.	...	3.40	0.76	2	10	4.80
The Bog, New Market	...	7.93	2.07	5	12	...	Victoria Town	...	4.93	1.50	15	8	8.63
Kew Park	...	...	...	...	...	...	Hog Hole, S. Manch.	...	6.74	1.34	2	8	...
Montpelier	...	13.25	3.44	6	20	...	Stone's Hope	...	3.06	0.83	29	5	10.18
Knockalva	...	14.20	4.02	6	25	...	Newport, Manchester	...	5.04	1.00	2	17	10.62
Ramble	...	14.93	6.00	6	11	...	Great Valley, Man.	...	3.27	0.85	3	11	8.10
Petersville	...	6.79	2.23	...	18	8.54	Alligator Pond	...	2.60	0.73	3	7	6.00
Darliston	...	15.97	3.37	4	23	10.38	Southfield, St. Elizabeth	...	4.00	1.24	9	7	...
Bluefields	...	7.31	1.40	23	16	...	Lititz	...	1.67	0.52	13	9	...
Whithorn	...	12.23	1.35	6	24	9.58	Torrington	...	1.12	0.40	2	3	4.41
Water Works Pen	...	11.82	2.00	2	21	...	Bethlehem, St. Eliz.	...	3.51	1.18	1	10	5.26
Great Valley, Han.	...	17.19	4.20	6	16	12.95	Santa Cruz	...	10.57	1.48	13	19	6.06
Prospect Park	...	...	...	...	...	...	Pedro Plains Police St.	...	0.73	0.30	23	3	4.30
Blackheath	...	...	...	...	...	...	Mountainside	...	6.92	2.17	30	11	...
Fontabelle, Westm.	...	14.11	2.03	9	21	11.20	Black River	...	3.43	0.42	14	16	4.02
Belleisle	...	15.02	2.50	9	22	10.47	Font Hill	...	5.10	0.80	15	14	6.08
Morgan's Bridge	...	20.99	3.75	9	19	10.61	Mount Edgecombe	...	6.35	2.26	5	16	6.82
King's Vale Police St.	...	23.56	2.95	23	23	11.37	Sweet River	...	8.02	1.20	4	17	7.37
							Windsor, Sav.-la-mar	...	7.97	2.35	10	19	6.71
							Orchard	...	9.45	2.50	6	17	...
							Sav.-la-mar	...	9.11	2.63	10	20	6.64
							Meylersfield	...	...	...	...	...	...
							Little London	...	4.09	1.61	6	9	...
							Retreat	...	5.36	2.11	6	10	7.95
							Negril Point L.H.	...	7.55	3.90	6	14	6.26
Mean	...	11.07	...	...	...	...	Mean	...	5.24	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

SHOCKS OF EARTHQUAKE IN JUNE, 1917.

DIVISIONAL AND ISLAND RAINFALL.	JUNE.		Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
	1917.	Average.				
	In.	In.				
North-Eastern Division	11.22	10.75	12	hr. min. 2. 26 p.m.	II	Mt. Holstein, NE and SW .008; faint sound.
Northern "	5.74	5.74				
West-Central "	11.07	9.48				
Southern "	5.24	6.93	23	During day	I	Mt. Holstein NE and SW '006
The Island	8.32	8.22				

Shrewsbury, a few miles south of Hope Bay, had the heaviest rainfall, namely 27.60; then came Moore Town with 26.21, and Lennox with 24.85. At King's Vale at the other end of the Island 23.56 inches fell. The rainfall was small in the d y districts shown in the Rainfall Map for June, only 0.73 falling on the Pedro Plains.

At Lennox, between Hope and Orange Bays, 17 inches were recorded on the 29th; but Mr. Lionel A. Isaacs writes me that 23.40 were recorded at the house on his property Retreat between 6 a.m. and 6 p.m. that day: the house is on the Savanna Point which juts out into the sea; and a regular rainfall record seems to be kept there. At my request Mr. Isaacs has sent me the record for June:—

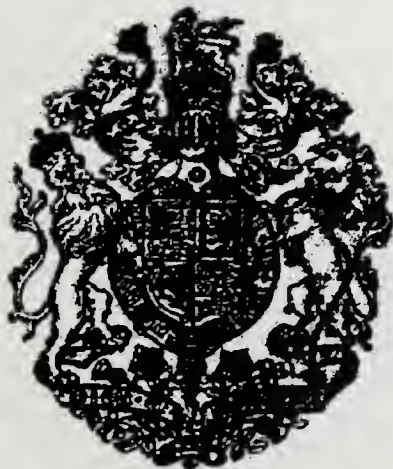
RETREAT, ORANGE BAY.

	in.		
1	1.55		
2	1.50		
5	0.20		
6	0.15		
7	1.90		
8	0.10		
9	0.20		
20	0.05		
22	0.20		
23	1.00		
25	0.50		
26	0.40	29th—6 a.m. to 9 a.m.	4.15
29	24.00	9 a.m. to 2 p.m.	10.75
30	0.05	2 p.m. to 6 p.m.	8.50
	31.80	For 12 hours	23.40

As far as I know this is a record for 12 hours. In "The Jamaica Rainfall" pp. 21-23, a number of heavy rainfalls for 24 hours were given, the heaviest being 30.5 for Silver Hill during the flood rains Nov. 6th, 1909. But as over 8 inches fell at Plumb Point in 15 minutes May 12th 1916, when the Light house shook to its foundations, and when the rain gauge which holds 8 inches continued to overflow, extraordinary rains may have occurred for 12 hours at other places and other times which are not recorded.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.



JAMAICA

WEATHER REPORT

FOR THE MONTH OF
JANUARY, 1917.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Elevation.	Bar Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House	8	30.048	30.004	75.8	79.2	80.6	72.8	7.8	83.5	11	60.0	10	23.5
Kingston	24	30.023	29.974	67.0	81.1	84.5	65.9	18.6	89.9	11	63.3	15	26.6
Negril Point Light House	33	30.031	29.977	68.9	81.6	84.5	66.2	18.3	87.1	20	60.8	20	26.3
Castleton Gardens	496	..	..	64.9	81.1	83.4	65.2	18.2	87	14	56	9	31
Hope Gardens†	668	30.041	..	65.9	83.3	86	64.6	22.0	89	14*	62	7*	27
Bavinton, Stony Hill**	1,355	..	..	64.4	76.7	79.1	62.9	16.2	82.0	9*	59.5	9	22.5
Stony Hill Indus. School	1,400	..	..	64.9	76.3	78.6	63.1	15.5	82	10*	60	22	22
Hill Gardens	4,900	25.318	25.275	57.8	61.4	65	52	13	69	24	49	9*	20

STATIONS.	Elevation.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.	°	%			7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.
	ft.	°	°	°	%	in	miles	°	m	°	m	L.	M.	U.	L.	M.	U.
Morant Pt. Light House	8	68.1	77	67.7	68	2.78	..	NE	16	NE	14	4.0	0.4	0.3	2.5	1.0	0.3
Kingston	24	62.7	86	67.5	63	0.26	152	N	5.0	SE	11.2	1.1	2.0	0.4	1.8	2.1	0.3
Negril Point Light House†	33	63.9	84	67.9	64	1.09	203	NE	8.0	WSW	10.4	1.5	0.4	1.1	1.3	5.0	0.3
Castleton Gardens	496	62.2	90	60.8	62	6.66	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	60.5	84	65.9	57	1.20	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,355	60.3	87	62.4	62	1.28	..	N	1.2	NNE	4.2	2.5	1.4	1.0	3.4	3.0	0.3
Stony Hill Indus. School	1,400	60.4	85	62.3	62	1.31	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	4,900	52.9	81	53.7	86	3.87	..	..	..	..	..	..	..	..	..	..	..

* and on other days.

† Negril Point Light House.

** Bavinton, Stony Hill.

Wind 11 p.m.

Mean Min. temp. on grass

Earth temp. 1 ft. below surface

4 ft.

† Hope Gardens.

Bar. read at 9 a.m. and 3 p.m.

N.E.

8.1

57.3

71.6

73.3

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

JAN., 1917.						JAN., 1917.					
NORTH-EASTERN DIVISION.						NORTHERN DIVISION.					
						Total fall.	Greatest fall in 24 hours.		Date	Days on which 0.01 or more fell.	Average.
						In.	Amount.	In.			
Manchioneal	4.72	1.50	25	12	...	Port Maria	3.74	0.71	16	12	6.72
Spring Valley, Portland	7.71	3.33	25	16	...	Ocho Rios	2.92	1.00	15	7	5.42
Bath	7.44	1.64	24	16	6.26	Bogue, Ocho Rios	2.92	0.60	18	14	...
Priestman's River	5.88	1.90	25	11	...	Rockfield	4.56	1.25	16	12	...
Moore Town	17.22	5.47	25	15	18.55	Drax Hall	3.25	0.80	24	11	4.84
Port Antonio	6.76	1.42	25	13	19.10	Liberty Hill	2.51	0.80	17	9	7.23
Fellowship	10.40	3.07	25	18	14.16	St. Ann's Bay	2.60	0.69	16	15	5.01
Johnson River Bridge	2.80	0.80	13	12	3.59	Seville	2.94	0.90	17	9	5.61
Shrewsbury	11.78	2.05	17	17	20.13	Richmond Estate	...	...	...	...	...
Cedar Valley, St. Thos.	1.80	0.80	13	4	4.46	Llandoverly	2.27	0.80	16	6	6.62
Hope Bay	6.90	1.05	18	18	...	Runaway Bay	1.23	0.23	16	9	...
Moy Hall, St. Thos.	...	...	...	...	...	Brown's Town	4.26	1.58	16	7	5.41
Brooklodge	1.30	0.37	13	6	...	Alexandria	1.99	1.05	16	4	...
Lennox	7.90	1.10	17	19	...	Chewmagna, St. Ann	2.35	0.85	25	6	2.70
Farm Hill	5.05	2.20	2	4	6.79	Home Castle	3.55	1.15	16	9	5.39
Hill Gardens	3.87	1.50	2	11	7.09	Richmond Pen	...	...	...	...	...
Buff Bay	6.93	1.45	16	8	10.22	Mahogany Hall	2.80	1.18	16	7	4.76
Vinery	8.67	1.80	18	13	14.26	Barnstaple	1.69	0.80	16	3	...
Windsor Castle, Port.	3.60	0.30	2	4	...	Brampton Bryan	...	...	...	...	...
Greenvale, Portland	13.06	3.10	17	20	18.94	Bryan Castle	4.00	1.80	16	6	4.66
Mt. Holstein	7.84	2.21	17	21	14.03	Braco	2.05	1.30	10	5	4.17
Irish Town	1.68	1.68	26	1	2.49	Arcadia	5.30	2.70	16	4	4.38
Rose Hill	3.76	0.95	31	7	...	Lancaster	2.85	1.00	16	7	4.59
Hardware Gap	5.00	...	...	...	4.95	Harmony Hall	2.16	0.73	17	7	3.97
Stony Hill Ind. School	1.31	0.30	11	9	3.30	Vale Royal	5.69	2.15	16	5	4.94
Castleton Gardens	6.66	2.38	31	4	8.87	Colchis Pen	1.32	0.65	17	6	3.29
Lawrence Tavern	0.84	0.50	17	4	1.95	Swanswick	3.60	1.15	18	8	...
Cedar Valley, Red Hills	2.79	1.30	26	4	...	Georgia	4.30	2.15	16	6	...
Zion Hill	1.48	0.75	18	6	...	Long Pond	4.36	1.71	16	7	...
Agualta Vale	5.86	1.40	16	11	7.18	Duncans	...	...	...	...	...
Water Valley	7.79	1.75	16	17	9.14	Hyde Hall	5.00	1.80	16	7	...
Albany, Ry. Station	...	...	...	...	...	Steelfield	4.61	1.91	16	6	...
Platfield	...	...	...	...	...	Etingdon	...	...	...	...	...
Richmond, St. Mary	6.89	1.80	17	13	6.18	Lottery	3.40	1.40	16	6	3.78
Highgate	8.98	2.20	15	11	...	Falmouth	2.82	0.97	17	9	3.60
Hampstead, St. Mary	12.02	1.35	17	26	10.30	Florence Hall	...	...	...	...	...
Guy's Hill	8.44	2.65	17	8	...	Good Hope	2.05	1.25	16	3	...
Lucky Hill	10.48	2.10	16	14	...	Unity	1.84	0.80	16	4	...
Rio Hoe	6.67	1.93	16	11	5.47	Kent	1.91	1.15	17	5	...
Unity Valley	5.69	2.58	17	13	4.69	Canaan	4.08	1.62	16	8	3.08
Moneague	9.56	3.22	18	11	4.18	Content	1.50	0.64	17	4	...
Claremont	6.20	1.75	16	10	6.12	Bellfield	...	...	...	...	...
Alblon, St. Ann	6.45	1.74	16	14	5.15	Guilsbro	3.40	1.20	16	12	3.15
Averham Park	5.17	1.75	16	9	6.88	Glasgow	1.90	1.10	16	2	...
Mean	6.84	...	...	...	...	Moor Park	2.03	1.00	17	4	4.19
						Rose Hall	...	...	...	...	...
						Running Gut	...	...	...	...	...
						Cinnamon Hill	...	...	...	...	...
						Success	...	...	...	...	...
						Montego Bay	0.89	0.45	16	4	2.92
						Catherine Hall	...	...	...	...	...
						Retirement	2.12	1.13	16	6	...
						King Gate	1.09	0.54	16	4	3.94
						Blue Hole	1.95	0.90	25	4	...
						Haughton Court	0.90	0.30	3	4	2.34
						Lucea	1.14	0.63	25	5	3.07
						Green Island	0.60	3.30	31	3	...
						CENTRAL SUB-DIVISION.					
						Rio Magno	8.68	2.50	17	6	...
						Headworks, Rio Cobre	0.71	0.71	11	1	1.84
						Linstead	1.65	0.70	17	4	2.15
						Berkshire Hall	4.28	1.13	17	11	2.96
						Point Hill	2.19	0.75	19	5	2.74
						Marlie Hill	...	...	...	...	...
						Worthy Park	2.14	1.55	17	3	...
						Croft Hill	1.69	0.93	17	7	...
						Chapelton	1.27	0.56	17	4	2.24
						Danks Works	1.12	0.66	17	5	1.89
						Savoy House	1.03	0.63	17	6	2.29
						Crooked River	2.00	1.00	24	4	...
						Trout Hall	2.02	0.60	17	6	...
						Frankfield	...	...	...	...	...
						Cave Valley	...	...	...	...	...
						Mean	2.60	...	...	...	...

551.05
JA

No. 472.



JAMAICA

WEATHER REPORT

FOR THE MONTH OF

JULY, 1917.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
		in.	in.	°	°	°	°	°	°	°	°	°	°
Morant Pt. Light House	8	29.994	29.975	81.6	84.3	85.8	78.2	7.6	87.0	7*	74.0	22	13.0
Kingston	24	29.965	29.935	76.3	85.1	89.8	73.3	16.5	93.4	19	71.4	6	22.0
Negril Point Light House	33	29.975	29.939	78.2	83.8	88.3	72.9	15.4	91.5	13	69.1	26	22.4
Castleton Gardens	496	..	..	70.3	83.9	88.5	69.4	19.1	92	21	66	4*	26
Hope Gardens†	668	29.926	29.885	75.3	85.5	90.3	70.6	19.7	95	19	69	1*	26
Bavinton, Stony Hill**	1,349	29.980	29.931	71.3	80.1	84.3	67.9	16.4	89.5	21*	65.0	4*	24.5
Stony Hill Indus. School	1,400	..	..	71.4	80.2	83.9	68.0	15.9	88	20*	66	23	22
Hill Gardens	4,900	25.287	25.262	63.5	64.0	68.0	58.7	9.3	74	19	57	1*	17

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		°	°	°	°			in	miles	°	m.	°	m.	L.	M.	U.	L.
Morant Pt. Light House	8	73.1	76	73.2	70	2.05	318	NE	16	ENE	14	1.6	1.8	1.5	1.5	1.3	1.4
Kingston	24	69.3	79	71.4	64	0.63	216	E	5.9	SE	15.5	1.4	1.5	2.0	2.5	2.0	2.6
Negril Point Light House†	33	70.1	76	73.4	71	5.93	196	ENE	7.0	SE	10.9	0.4	0.7	4.0	3.5	5.4	0.4
Castleton Gardens	496	68.5	96	74.1	72	4.21	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	66.8	76	63.8	57	1.10	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	66.9	86	69.7	71	5.33	..	N	1.4	NNW	3.9	2.0	1.1	1.5	3.8	2.5	0.7
Stony Hill Indus. School	1,400	67.8	88	71.3	74	3.40	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	4,900	60.3	86	60.2	86	2.30	..	..	..	..	..	..	..	..	..	..	..

* and on other days.

† Negril Point Light House.

** Bavinton, Stony Hill.

Wind 11 p.m.

Mean Min. temp. on grass

Earth temp. 1 ft. below surface

4ft. " "

† Hope Gardens. Bar. read at 9 a.m. and 3 p.m.

ENE

6.7

64.4

79.1

77.9

THE RAINFALL.

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NORTH-EASTERN DIVISION.		JULY, 1917.											
		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell	Average.							
			Amount	Date.									
		In.	In.			In.							
Mauchioneal	...	4.33	0.60	4	19	6.46	Hyde Hall	...	3.25	2.15	7	4	3.10
Bath	...	7.64	2.75	16	18	9.66	Steelfield	...	3.88	2.20	7	5	2.1
Priestman's River	...	8.89	2.06	16	20	...	Etingdon	...	2.10	1.20	7	4	1.1
Moore Town	...	14.95	4.50	9	10	20.23	Lottery	...	3.10	1.20	7	6	2.1
Port Antonio	...	13.31	3.22	16	21	11.60	Falmouth	...	2.32	1.58	14	6	1.1
Fellowship	...	17.65	3.77	16	21	16.64	Florence Hall	...	0.87	0.37	19	3	...
Johnson River Bridge	...	7.31	1.72	16	19	7.71	Good Hope	...	...	...	...	...	...
Shrewsbury	...	17.40	4.25	19	8	9.46	Unity	...	...	...	...	...	...
Cedar Valley, St. Thos.	...	6.34	1.25	8	9	4.85	Kent	...	0.92	0.60	7	6	1.1
Hope Bay	...	17.13	5.19	9	20	...	Canaan	...	3.28	0.88	8	10	...
Moy Hall, St. Thos.	...	...	...	...	...	...	Content	...	...	...	...	...	...
Brooklodge	...	5.31	1.25	8	12	...	Bellfield	...	...	...	...	...	...
Lennox	...	19.50	7.50	9	18	...	Guildbro	...	3.93	0.97	7	19	4.1
Farm Hill	...	3.33	1.50	13	5	3.34	Glasgow	...	3.48	1.10	30	7	...
Hill Gardens	...	2.30	0.80	13	9	3.76	Moor Park	...	...	...	...	...	...
Buff Bay	...	15.22	6.05	9	17	7.37	Rose Hall	...	...	...	...	...	...
Vinery	...	10.67	3.50	6	10	3.56	Running Gut	...	...	...	...	...	...
Windsor Castle, Port.	...	9.80	3.65	9	8	...	Cinnamon Hill	...	...	...	...	...	...
Greenvale, Portland	...	9.52	4.69	13	10	2.61	Success	...	...	...	...	...	...
Mt. Holstein	...	5.09	2.56	13	15	6.95	Spring Estate	...	1.20	0.60	7	3	2.28
Irish Town	...	2.95	1.44	16	5	1.39	Montego Bay	...	4.13	1.32	23	9	3.41
Rose Hill	...	8.86	2.30	22	13	...	Catherine Hall	...	4.61	1.71	23	8	4.08
Hardware Gap	...	3.50	...	...	...	4.27	Retirement	...	9.07	3.00	9	14	...
Stony Hill Ind. School	...	3.40	1.04	25	13	5.39	King Gate	...	5.06	1.41	10	9	5.59
Castleton Gardens	...	4.21	8.68	31	13	6.16	Blue Hole	...	5.69	1.75	16	8	...
Lawrence Tavern	...	2.45	0.50	7	9	5.43	Haughton Court	...	6.95	4.15	16	8	5.04
Cedar Valley, Red Hills	...	5.45	1.65	25	12	...	Lucea	...	7.60	3.55	16	8	5.50
Zion Hill	...	5.52	1.20	7	11	...	Green Island	...	12.02	2.36	14	13	...
Annotto Bay	...	...	...	...	...	...	CENTRAL SUB-DIVISION.						
Agualta Vale	...	13.18	2.50	12	15	3.20	Rio Magno	...	4.85	1.20	1	7	...
Water Valley	...	6.13	1.15	9	14	3.78	Headworks, Rio Cobre	...	2.18	0.72	25	7	3.70
Albany, Ry. Station	...	...	...	...	...	...	Linstead	...	3.70	1.31	16	11	5.93
Platfield	...	...	...	...	...	...	Berkshire Hall	...	3.39	0.75	2	13	4.65
Richmond, St. Mary	...	9.58	5.68	6	10	3.68	Point Hill	...	4.45	1.10	3	9	6.57
Highgate	...	7.54	2.20	6	9	...	Marlie Hill	...	4.14	0.94	13	6	...
Hampstead, St. Mary	...	9.15	1.54	16	17	3.08	Worthy Park	...	5.02	1.17	16	8	4.34
Guy's Hill	...	2.51	0.80	6	8	...	Croft Hill	...	3.13	1.11	16	7	...
Lucky Hill	...	4.65	1.12	12	12	...	Chapelton	...	2.58	1.10	31	8	3.65
Rio Hoe	...	3.34	1.10	9	9	4.29	Danks Works	...	3.35	0.73	28	13	3.48
Unity Valley	...	4.37	1.55	9	14	5.92	Savoy House	...	4.67	1.33	25	15	3.15
Moneague	...	4.24	1.65	9	11	4.73	Crooked River	...	...	...	...	...	...
Claremont	...	2.51	1.23	9	4	3.43	Trout Hall	...	7.13	2.00	28	12	...
Albion, St. Ann	...	2.93	1.00	9	11	4.24	Frankfield	...	5.17	1.03	6	11	...
Averham Park	...	3.38	0.50	12	11	3.38	Cave Valley	...	...	...	...	...	...
Mean	...	7.25	...	...	...	...	Mean	...	3.86	...	...	...	...

		JAN., 1917.							JAN., 1917.				
WEST-CENTRAL DIVISION.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	SOUTHERN DIVISION.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
			Amount.	Date.						Amount.	Date.		
		In.	In.			In.			In.	In.			In.
Whitney	...	1.35	0.60	12	2	2.51	Morant Point L. H.	...	2.78	0.97	13	14	4.30
Mochó, Clarendon	...	0.70	0.60	11	2	2.30	Elliott Hill	...	5.33	1.20	14	18	...
Spaldings	...	2.31	0.86	17	13	...	Pleasant Hill	...	4.54	1.19	13	13	...
Baillieston	...	...	...	...	...	...	East Prospect	...	3.53	1.05	13	12	3.56
Brokenhurst	...	0.70	0.40	18	2	3.12	Morant Bay	...	2.27	0.50	13	10	2.70
Christiana	...	1.78	0.65	17	9	2.35	Easington	...	1.16	0.40	18	6	1.64
Chudleigh	...	1.82	0.71	17	9	2.47	Bull Bay	...	0.00	0.00	...	...	0.87
Shooter's Hill	...	0.77	0.25	28	6	...	Gordon Town	...	0.00	...	...	...	2.08
Spitzbergen	...	...	...	...	...	...	Hope Gardens	...	1.20	...	...	...	1.77
Kendal, Manchester	...	...	...	...	...	...	King's House Gardens	...	1.27	1.27	26	1	1.22
Marshall's Pen	...	1.52	0.36	28	6	2.87	Melrose	...	0.95	0.89	26	2	...
Mandeville	...	...	...	...	...	...	Halfway Tree	...	1.40	1.15	26	3	1.12
Carlton, Mandeville	...	1.86	0.56	10	18	...	Lunatic Asylum	...	0.50	0.39	26	3	0.72
The Hill	...	1.03	0.20	18	7	...	Glenmore Road	...	0.83	0.64	26	5	...
Fairfield, Manchester	...	1.06	0.31	26	9	2.61	Kingston P. W. Office	...	0.26	0.20	26	3	1.02
Greenvale	...	0.56	0.15	17	5	...	Plumb Point L. H.	...	0.90	0.56	26	9	0.80
Ulster Spring	...	2.72	1.22	15	4	3.06	Ferry	...	...	...	...	...	...
Freeman's Hall	...	1.75	0.70	17	5	...	Clifton Pen	...	0.10	0.10	26	1	...
Albert Town	...	0.84	0.50	9	3	...	Quarantine Station	...	0.10	0.07	15	2	...
Lowe River	...	1.80	1.00	15	2	2.92	Spanish Town	...	0.31	0.21	11	5	1.52
Troy	...	0.54	0.25	13	3	2.25	Hog Hole, St. Catherine	...	0.36	0.20	12	4	1.71
Windsor Pen, Trel.	...	1.43	0.40	17	...	3.13	Hartlands	...	...	...	...	...	...
Medina	...	0.61	0.50	11	3	...	Belmont, Guanaboa Vale	...	...	...	...	...	...
Wallingford	...	...	...	...	...	...	Old Harbour	...	...	...	...	...	...
Balaclava Police Station	...	0.70	0.32	28	3	1.71	May Pen	...	0.50	0.20	18	3	1.26
Siloah	...	1.25	0.95	28	2	3.08	Hillside	...	...	...	...	...	...
Appleton Estate	...	...	...	...	...	...	Moreland	...	1.16	0.54	21	5	2.16
Maggotty	...	3.30	1.90	28	5	2.72	Money Musk	...	...	...	...	...	...
Butlers	...	1.17	0.40	17	6	...	Dunkley's, Vere	...	0.42	0.42	2	1	1.33
Dromilly Pen	...	...	...	...	...	...	Dry River "	...	0.73	0.42	20	5	...
Spring Vale	...	2.10	0.95	16	4	4.03	Denbigh	...	...	...	...	...	...
Garland	...	0.88	0.82	17	2	...	Toll Gate	...	1.33	0.40	18	5	...
Mochó, Catadupa	...	...	...	...	...	...	Woodleigh	...	...	...	...	...	...
Springfield, St. Elizabeth	...	1.91	0.80	12	8	...	New Yarmouth	...	0.56	0.26	20	3	1.20
Chesterfield, St. James	...	2.66	2.20	19	5	...	Exeter, Vere	...	0.45	0.10	12	6	1.64
Catadupa Rly. Station	...	1.31	0.38	13	8	2.69	Rhymesbury	...	...	...	...	...	...
Keimshot	...	2.26	1.21	16	6	3.98	Milk River	...	1.30	1.30	26	1	1.50
Cambridge, St. James	...	0.77	0.56	24	4	...	Clarendon Pk. Ry. St.	...	7.04	1.60	12	5	...
Ducketts	...	1.80	0.69	24	5	...	Victoria Town	...	...	...	...	...	...
New Market, Police St.	...	1.67	0.40	13	9	...	Hog Hole, S. Manch.	...	1.84	0.50	26	6	...
The Bog, New Market	...	...	...	...	...	...	Stone's Hope	...	0.53	0.33	18	3	2.68
Kew Park	...	0.67	0.30	25	8	2.32	Newport, Manchester	...	...	...	...	...	...
Montpelier	...	0.94	0.63	16	3	...	Great Valley, Man.	...	0.40	0.17	18	5	2.49
Knockalva	...	1.92	1.12	25	7	...	Alligator Pond	...	...	...	...	...	...
Ramble	...	2.30	1.00	18	3	...	Southfield, St. Elizabeth	...	0.34	0.15	18	4	...
Petersville	...	3.32	2.07	25	10	2.25	Lititz	...	0.20	0.07	11	3	...
Darliston	...	2.79	1.16	12	10	2.93	Torrington	...	3.90	2.00	11	4	2.31
Bluefields	...	1.92	0.69	4	5	3.20	Bethlehem, St. Eliz.	...	2.45	0.82	11	7	2.52
Whithorn	...	2.03	1.02	25	6	1.97	Santa Cruz	...	0.74	0.27	12	4	2.83
Water Works Pen	...	1.41	0.50	17	6	...	Pedro Plains Police St.	...	0.00	0.00	...	...	...
Great Valley, Han.	...	2.48	0.98	25	4	4.68	Mountainside	...	2.31	0.73	26	5	...
Prospect Park	...	...	...	...	...	...	Black River	...	1.43	0.48	28	9	1.63
Blackheath	...	...	...	...	...	...	Font Hill	...	1.85	0.70	28	6	1.88
Fontabelle, Westm.	...	...	...	...	...	...	Mount Edgecombe	...	1.98	0.03	25	7	2.04
Belleisle	...	...	...	...	...	...	Sweet River	...	1.18	0.32	25	5	1.82
Morgan's Bridge	...	1.12	0.70	25	4	1.82	Windsor, Sav.-la-mar	...	0.70	0.35	17	4	1.83
King's Vale Police St.	...	2.28	1.46	25	5	3.26	Orchard	...	1.03	0.48	17	5	...
							Sav.-la-mar	...	0.93	0.41	25	6	1.62
							Meylersfield	...	...	...	...	...	...
							Little London	...	0.77	0.37	17	6	...
							Retreat	...	0.96	0.53	17	3	1.57
							Negril Point L.H.	...	1.09	0.74	25	7	1.34
Mean	---	1.72	...	...	...	...	Mean	---	1.16	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	JANUARY.	
	1917.	Average.
	In.	In.
North-Eastern Division ...	6.84	7.15
Northern " ...	2.60	3.77
West-Central " ...	1.72	2.85
Southern " ...	1.16	1.81
The Island ...	3.58	3.90

The greatest fall 17.22 inches was at Moore Town, and no rain fell at Bull Bay and Gordon Town.

SHOCKS OF EARTHQUAKE IN JAN., 1917.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
No	hr. min.		
earthquakes this month.			

MAXWELL HALL,

Government Meteorologist.

Montego Bay P.O.

		JULY, 1917.							JULY, 1917.				
WEST-CENTRAL DIVISION.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	SOUTHERN DIVISION.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
			Amount.	Date.						Amount.	Date.		
		In.	In.			In.			In.	In.			In.
Whitney	...	2.38	1.10	26	4	4.34	Morant Point L. H.	...	2.05	0.58	16	16	3.23
Mocho, Clarendon	...	1.45	8.80	25	5	5.00	Elliott Hill	...	4.94	1.94	17	26	...
Spaldings	...	3.42	0.50	4	16	...	Pleasant Hill	...	4.90	1.98	16	16	...
Baillieston	...	...	...	...	...	...	East Prospect	...	5.57	2.17	16	14	4.08
Brokenhurst	...	1.80	0.45	13	8	6.00	Morant Bay	...	6.13	1.95	16	12	5.80
Christiana	...	2.34	0.67	4	12	4.37	Easington	...	...	...	...	...	...
Chudleigh	...	3.46	0.66	26	16	4.31	Bull Bay	...	2.28	0.94	17	4	2.46
Shooter's Hill	...	4.99	1.27	28	15	...	Bellevue	...	3.28	0.74	9	13	...
Spitzbergen	...	3.37	1.06	26	14	...	Gordon Town	...	2.21	1.18	27	4	2.62
Kendal, Manchester	...	7.18	1.39	28	11	4.37	Hope Gardens	...	1.19	...	...	...	2.72
Marshall's Pen	...	3.31	1.32	25	9	4.94	King's House Gardens	...	1.20	1.20	27	1	2.84
Mandeville	...	4.12	1.68	25	13	5.91	Melrose	...	1.00	0.37	27	8	...
Carlton, Mandeville	...	3.94	1.24	25	13	5.91	Halfway Tree	...	0.57	0.21	27	5	1.85
The Hill	...	3.08	1.19	13	7	...	Lunatic Asylum	...	0.83	0.30	5	5	1.51
Fairfield, Manchester	...	3.14	1.24	25	12	3.05	Glenmore Road	...	1.21	0.30	5	8	...
Mile Gully	...	1.60	0.37	28	9	...	Kingston P. W. Office	...	0.66	0.19	12	8	1.81
Ulster Spring	...	8.43	2.75	30	9	4.45	Plumb Point L. H.	...	2.48	1.17	16	5	1.94
Freeman's Hall	...	4.62	1.00	25	10	...	Ferry	...	...	...	...	...	...
Albert Town	...	4.00	1.75	6	4	5.00	Clifton Pen	...	0.60	0.25	10	3	...
Lowe River	...	9.62	2.35	28	9	3.34	Quarantine Station	...	0.38	0.26	13	2	...
Troy	...	6.15	2.70	7	7	7.11	Spanish Town	...	0.46	0.30	28	4	2.48
Windsor Pen, Trel.	...	3.48	1.40	24	11	6.65	Hog Hole, St. Catherine	...	0.71	0.23	13	7	2.67
Medina	...	1.97	1.04	23	4	...	Hartlands	...	0.50	0.35	8	2	0.98
Wallingford	...	...	...	...	...	...	Belmont, Guanaboa Vale	...	6.86	4.20	13	10	...
Balaclava Police Station	...	7.07	3.24	22	8	4.71	Old Harbour	...	2.13	1.66	8	2	...
Siloah	...	12.05	2.60	25	17	6.86	May Pen	...	1.04	0.52	8	6	3.72
Appleton Estate	...	9.14	2.54	25	18	7.24	Happy Hut	...	0.64	0.48	25	2	...
Maggotty	...	10.91	2.43	22	11	8.15	Hillside	...	...	...	...	...	...
Butlers	...	10.35	1.60	6	15	...	Moreland	...	...	...	...	...	...
Dromilly Pen	...	7.47	2.00	15	10	...	Money Musk	...	...	...	...	...	...
Spring Vale	...	4.28	2.13	25	4	8.33	Dunkley's, Vere	...	0.66	0.25	9	5	2.32
Garland	...	5.51	1.65	28	9	...	Dry River "	...	0.26	0.15	9	2	...
Mocho, Catadupa	...	6.64	2.11	28	7	...	Denbigh	...	1.05	0.60	11	...	2.99
Springfield, St. Elizabeth	...	...	...	...	...	...	Toll Gate	...	2.15	1.15	25	5	...
Westfield, St. James	...	6.25	1.65	15	10	...	Woodleigh	...	...	...	...	...	...
Catadupa Rly. Station	...	7.94	2.42	28	20	9.77	New Yarmouth	...	0.35	0.35	9	1	2.42
Tempshot	...	5.77	1.61	9	18	6.21	Exeter, Vere	...	...	...	...	...	...
Cambridge, St. James	...	7.12	2.85	28	12	...	Rhymesbury	...	...	...	...	...	...
Buckets	...	11.33	4.35	23	9	...	Milk River	...	0.03	0.03	3	1	...
New Market, Police St.	...	5.06	0.93	24	14	...	Clarendon Pk. Ry. St.	...	1.30	0.80	25	7	2.39
De Bog, New Market	...	7.18	1.76	6	15	...	Victoria Town	...	0.90	0.35	14	4	2.61
New Park	...	7.74	2.60	28	23	10.33	Hog Hole, S. Manch.	...	2.55	1.35	25	4	...
Antpelier	...	7.01	2.17	16	13	...	Stone's Hope	...	3.40	0.86	24	8	4.30
Blackalva	...	6.14	1.17	16	15	...	Newport, Manchester	...	2.62	0.70	25	11	3.73
Amble	...	8.75	2.00	16	9	...	Great Valley, Man.	...	1.69	0.70	13	5	3.27
Petersville	...	5.70	2.33	28	14	7.17	Alligator Pond	...	1.48	0.66	13	4	2.43
Darliston	...	11.67	2.17	24	16	11.87	Southfield, St. Elizabeth	...	2.20	1.37	25	5	...
Bluefields	...	18.46	4.79	21	14	...	Lititz	...	2.09	0.74	25	7	...
Whithorn	...	7.35	1.35	28	15	10.73	Torrington	...	2.11	0.95	25	8	2.64
Water Works Pen	...	8.70	1.60	12	13	...	Bethlehem, St. Eliz.	...	2.84	1.08	25	7	3.04
Great Valley, Han.	...	10.85	2.10	24	15	10.24	Santa Cruz	...	4.85	1.10	26	9	5.27
Prospect Park	...	...	...	...	...	...	Pedro Plains Police St.	...	1.78	1.35	25	4	1.48
Fontabelle, Westm.	...	10.70	2.43	8	16	7.75	Mountainside	...	4.85	2.50	25	11	...
Belleisle	...	...	...	...	...	...	Black River	...	4.91	1.90	22	10	4.82
Morgan's Bridge	...	11.67	1.62	7	16	11.16	Font Hill	...	4.70	1.35	28	10	...
King's Vale Police St.	...	12.75	1.75	15	17	10.74	Mount Edgecombe	...	5.74	1.71	13	17	6.93
							Sweet River	...	10.16	3.00	23	14	7.52
							Windsor, Sav.-la-mar	...	10.17	2.27	22	14	6.91
							Orchard	...	9.44	1.71	22	15	...
							Sav.-la-mar	...	8.94	1.60	23	16	5.84
							Little London	...	8.75	1.86	25	13	...
							Retreat	...	7.48	2.20	28	13	7.65
							Negril Point L.H.	...	5.93	0.93	31	15	5.90
Mean	...	6.68	...	...	...	...	Mean	...	3.04	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

SHOCKS OF EARTHQUAKE IN JULY, 1917.

DIVISIONAL AND ISLAND RAINFALL.	JULY.		Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
	1917.	Average.				
	In.	In.				
North-Eastern Division ...	7.25	6.41	16	hr. min. 2. 3 p.m.	I	Kingston: NE & SW. 0.007, 2 secs duration; and Half- way Tree
Northern " ...	3.86	3.21				
West-Central " ...	6.68	7.85				
Southern " ...	3.04	3.59	17	2. 20 "	I	Halfway Tree
The Island ...	5.21	5.26	20	3. 50 a.m.	I	Mt. Holstein NE and SW 0.007

The heaviest rainfall 19.50 inches was recorded at Lennox in the N. E. division: the smallest 0.03 at Milk River.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

551.05
J A.

No. 473.



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JAMAICA

W E A T H E R . R E P O R T

FOR THE MONTH OF

AUGUST, 1917.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar Pressure.		Temperatures					Extreme Temperatures.					
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min	Date.	Range	
		ft.	in.	in.	°	°	°	°	°	°	°	°	°	°
Morant Pt. Light House	..	8	29.986	29.995	81.7	84.0	86.1	77.0	9.1	87.5	22	71.0	23	16.5
Kingston	..	24	29.969	29.927	75.2	85.1	89.7	73.3	16.4	91.8	25	70.5	25	21.3
Negril Point Light House	..	33	29.967	29.937	77.6	81.6	86.8	72.1	14.7	88.8	8	70.0	31	18.8
Castleton Gardens	..	496	..	..	70.2	81.5	86.6	69.3	17.3	92	21	66	2*	26
Hope Gardens†	..	668	..	..	74.2	85.1	90.0	70.0	20.0	95	26	64	24	31
Bavinton, Stony Hill**	..	1,349	29.978	29.937	70.8	78.3	83.1	67.8	15.3	87.0	2*	65.5	11*	21.5
Stony Hill Indus. School	..	1,400	..	..	71.1	78.5	82.1	68.0	14.1	87	15*	66	19	21
Hill Gardens	..	4,900	25.296	25.280	64.6	67.0	70.9	58.2	12.7	76	22	57	1*	19

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		°	°	°	°			in	miles.	°	°	L.	M.	U.	L.	M.	U.
Morant Pt. Light House	8	73.2	75	73.6	71	5.31	250	NE	12	ENE	11	3.3	1.3	1.4	2.2	1.4	1.6
Kingston	24	69.9	84	72.4	66	1.15	184	NE	4.1	SE	14.6	0.4	1.1	3.3	2.8	1.7	3.6
Negril Point Light House†	33	71.0	80	73.4	76	12.07	163	ENE	7.2	NNE	8.3	0.6	0.7	4.3	2.3	7.0	0.4
Castleton Gardens	496	68.9	96	75.3	79	13.93	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	66.2	76	70.8	63	1.63	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	67.6	89	71.2	79	10.42	..	NE	1.2	N	2.4	1.9	0.8	2.6	4.7	2.5	1.2
Stony Hill Indus. School	1,400	68.3	90	72.6	82	10.83	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	4,900	61.3	87	63.5	90	5.01	..	..	..	..	..	..	..	..	..	..	..

* and on other days.

† Negril Point Light House.

** Bavinton, Stony Hill.

Mean Min. temp. on grass

Earth temp. 1 ft. below surface

“ 4ft. “ “

† Hope Gardens.

ENE

Bar. read at 9 a.m. and 3 p.m.

6.1

64.7

78.9

78.0

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	AUGUST, 1917.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			In.
Manchioneal	12.75	1.50	5	25	7.17
Bath	13.39	1.70	26	20	10.01
Priestman's River	10.66	2.15	26	18	...
Moore Town	...	...	...	...	...
Port Antonio	12.05	1.51	26	25	10.76
Fellowship	13.95	1.50	2	25	14.28
Johnson River Bridge	7.65	1.44	20	24	10.02
Shrewsbury	5.85	0.55	29	9	9.42
Cedar Valley, St. Thos.	1.95	0.65	26	6	9.76
Hope Bay	...	...	...	...	...
Moy Hall, St. Thos.	...	...	...	...	...
Brooklodge	1.60	0.39	4	15	...
Lennox	6.00	0.75	2	17	...
Farm Hill	5.35	1.70	29	7	5.83
Hill Gardens	5.01	1.78	29	12	7.92
Buff Bay	3.16	0.68	11	13	5.70
Vinery	1.70	0.50	10	8	3.92
Windsor Castle, Port.	...	...	...	...	...
Greenvale, Portland	4.59	1.43	29	9	5.04
Mt. Holstein	12.35	4.04	1	19	6.69
Irish Town	2.52	0.87	20	4	6.00
Rose Hill	10.94	2.30	6	10	...
Hardware Gap	7.50	...	...	...	6.73
Stony Hill Ind. School	10.83	2.61	6	16	9.44
Castleton Gardens	15.98	5.20	31	19	10.03
Lawrence Tavern	8.08	1.60	1	16	8.58
Cedar Valley, Red Hills	8.04	2.54	6	12	...
Zion Hill	12.46	2.50	1	16	...
Agualta Vale	4.28	1.25	26	9	...
Water Valley	1.58	0.40	21	7	4.34
Albany, Ry. Station	...	...	...	...	...
Platfield	...	...	...	...	...
Richmond, St. Mary	4.01	1.98	26	12	4.97
Highgate	3.33	2.20	26	4	...
Hampstead, St. Mary	2.55	0.96	7	8	4.86
Guy's Hill	6.98	1.85	11	11	...
Lucky Hill	2.23	0.62	11	5	...
Rio Hoe	3.64	0.81	11	11	6.27
Unity Valley	6.14	1.40	4	12	6.49
Moneague	5.79	1.43	19	15	6.03
Claremont	3.17	1.20	19	5	5.53
Albion, St. Ann	6.42	1.76	4	17	6.10
Averham Park	3.78	0.95	1	8	4.86
Mean	6.55	...	...	...	...

NORTHERN DIVISION.	AUGUST, 1917.				
	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			
Port Maria	4.71	1.81	5	9	4.72
Ocho Rios	4.25	2.20	11	6	2.72
Bogue, Ocho Rios	3.92	1.55	11	11	...
Rockfield	2.96	0.55	30	12	...
Drax Hall	4.53	2.00	11	6	3.59
Liberty Hill	1.54	0.45	11	5	2.82
St. Ann's Bay	3.85	1.15	11	14	2.65
Seville	3.66	0.90	11	9	3.55
Richmond Estate	...	...	...	...	...
Llandovery	2.90	1.15	5	6	2.86
Runaway Bay	1.34	0.34	6	6	...
Brown's Town	5.22	1.60	21	12	3.98
Alexandria	5.06	1.00	20	9	...
Chewmagna, St. Ann	8.74	2.40	19	13	...
Home Castle	4.10	1.30	21	14	3.61
Richmond Pen	9.00	2.15	31	17	4.89
Mahogany Hall	11.70	2.05	3	16	5.85
Barnstaple	10.79	3.00	20	12	...
Bryan Castle	3.90	1.50	19	8	2.88
Braco	2.15	0.85	19	6	2.89
Arcadia	5.25	0.80	26	12	3.54
Lancaster	2.69	0.82	19	7	3.21
Harmony Hall	1.69	0.46	18	7	2.57
Vale Royal	3.72	0.60	3	12	4.54
Colchis Pen	...	...	...	...	...
Swanswick	10.75	1.80	3	15	...
Georgia	2.96	0.50	3	12	3.67
Long Pond	8.46	1.40	3	15	...
Duncans	...	...	...	...	...
Hyde Hall	6.89	1.32	3	14	...
Steelfield	4.11	0.98	3	11	...
Etingdon	2.45	0.75	27	6	...
Lottery	2.95	0.70	27	8	3.56
Falmouth	2.09	0.04	27	6	2.77
Florence Hall	1.14	0.50	27	5	...
Good Hope	6.48	1.65	9	11	...
Unity	8.48	1.26	26	18	...
Kent	...	...	...	...	...
Canaan	5.06	1.40	26	15	5.38
Content	3.94	1.10	26	8	...
Bellfield	...	...	...	...	...
Gnillsbro	10.00	1.85	11	19	5.88
Glasgow	4.98	1.65	11	6	...
Moor Park	...	...	...	...	...
Rose Hall	...	...	...	...	...
Running Gut	...	...	...	...	...
Cinnamon Hill	...	...	...	...	...
Success	...	...	...	...	...
Spring Estate	1.92	0.65	19	5	2.62
Montego Bay	3.50	1.00	11	14	5.83
Catherine Hall	5.19	1.15	29	14	6.08
Retirement	5.65	1.53	11	17	...
King Gate	11.95	4.26	11	18	5.82
Blue Hole	4.15	0.73	12	11	...
Houghton Court	5.95	2.05	22	12	7.21
Lucea	4.52	0.70	12	10	6.86
Green Island	11.93	1.16	3	21	...
CENTRAL SUB-DIVISION.					
Rio Magno	12.93	3.15	21	7	...
Headworks, Rio Cobre	3.65	0.90	3	8	5.75
Linstead	9.16	2.70	1	21	8.22
Berkshire Hall	5.42	1.37	27	15	5.62
Point Hill	11.94	3.35	9	13	12.37
Marlie Hill	13.48	4.10	9	11	...
Worthy Park	5.64	1.14	2	8	5.49
Croft Hill	5.50	1.15	30	16	...
Chapelton	7.90	1.18	30	20	6.81
Danks Works	9.87	2.05	19	21	5.84
Savoy House	9.77	2.37	20	20	6.04
Crooked River	5.25	2.00	20	14	...
Trout Hall	12.77	2.35	20	19	...
Frankfield	9.34	1.58	20	16	...
Cave Valley	...	...	...	...	...
Mean	5.40	...	...	...	...

AUGUST, 1917.						AUGUST, 1917.					
WEST-CENTRAL DIVISION.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	SOUTHERN DIVISION.	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Whitney ...	8.56	1.55	29	13	8.96	Morant Point L. H. ...	5.31	0.85	19	25	5.31
Mochó, Clarendon ...	6.08	1.50	9	7	6.68	Elliott Hill ...	10.34	1.45	20	28	...
Spaldings ...	6.79	1.08	11	21	...	Pleasant Hill ...	10.56	1.51	19	21	...
Baillieston ...	...	...	...	...	...	East Prospect ...	10.98	2.36	26	22	6.60
Brokenhurst ...	5.66	1.10	20	13	7.12	Morant Bay ...	6.10	0.96	26	16	5.68
Christiana ...	6.85	1.00	6	16	6.44	Easington ...	4.27	1.35	20	15	6.17
Chudleigh ...	7.52	1.68	5	18	9.02	Bull Bay ...	0.81	0.36	6	4	2.82
Shooter's Hill ...	6.71	1.20	6	19	...	Bellevue ...	1.69	0.80	5	4	...
Spitzbergen ...	5.37	1.19	3	17	...	Gordon Town ...	2.70	0.60	4	8	4.47
Kendal, Manchester ...	9.23	2.04	6	15	6.80	Hope Gardens ...	...	...	...	...	...
Marshalls Pen ...	10.63	1.69	7	17	8.03	King's House Gardens ...	...	...	...	...	...
Mandeville ...	9.96	1.61	3	17	8.38	Melrose ...	1.89	0.46	5	11	...
Carlton, Mandeville ...	9.72	1.86	3	14	8.38	Halfway Tree ...	2.24	0.51	5	11	3.54
The Hill ...	7.05	1.37	20	11	...	Lunatic Asylum ...	0.97	0.80	5	6	2.59
Fairfield, Manchester ...	8.70	2.20	6	18	5.37	Glenmore Road ...	1.15	0.60	5	6	...
Mile Gully ...	...	...	...	...	...	Kingston P. W. Office ...	1.15	0.80	6	5	3.88
Ulster Spring ...	11.83	2.97	5	16	6.91	Plumb Point L. H. ...	2.82	0.93	6	10	3.50
Freeman's Hall ...	10.26	3.00	20	17	...	Ferry ...	...	...	...	...	...
Albert Town ...	10.22	3.65	5	7	...	Clifton Pen ...	1.90	0.72	5	4	...
Lowe River ...	9.97	1.54	19	10	7.19	Quarantine Station ...	0.27	1.12	29	3	...
Troy ...	14.33	3.00	12	16	10.07	Spanish Town ...	0.77	0.37	25	7	4.04
Windsor Pen, Trel. ...	8.17	1.60	5	14	8.42	Hog Hole, St. Catherine...	1.76	0.45	9	8	4.53
Medina ...	2.97	0.96	5	8	...	Hartlands ...	1.34	0.68	6	2	...
Wallingford ...	...	...	...	...	...	Belmont, Guanaboa Vale ...	5.54	1.00	8	15	...
Balaclava Police Station...	5.51	0.95	20	12	7.02	Old Harbour ...	2.10	1.50	5	2	4.66
Siloah ...	11.85	2.50	20	19	11.60	May Pen ...	4.64	2.20	21	11	4.79
Appleton Estate ...	14.68	2.72	20	27	10.88	Happy Hut ...	2.59	1.45	20	5	...
Maggotty ...	14.33	2.66	29	21	10.65	Hillside ...	...	...	...	...	...
Butlers ...	16.39	2.80	3	21	...	Moreland ...	1.73	0.80	26	6	...
Dromilly Pen ...	12.46	4.15	27	14	...	Money Musk ...	...	...	...	...	...
Spring Vale ...	10.21	1.10	22	13	11.61	Dunkley's, Vere ...	1.88	0.79	20	6	4.25
Garland ...	...	...	...	...	...	Dry River " ...	1.99	0.85	26	3	...
Mochó, Catadupa ...	...	...	...	...	...	Denbigh ...	2.55	1.25	20	3	4.92
Springfield, St. Elizabeth ...	...	...	...	...	...	Toll Gate ...	1.45	0.50	20	5	...
Chesterfield, St. James ...	23.32	1.80	29	29	...	Woodleigh ...	...	...	...	...	...
Catadupa Rly. Station ...	18.97	3.31	24	27	13.33	New Yarmouth ...	1.63	0.77	26	3	3.86
Kempshot ...	12.77	3.33	1	20	8.61	Exeter, Vere ...	...	...	...	...	...
Cambridge, St. James ...	15.27	1.89	11	29	...	Rhymesbury ...	...	...	...	...	...
Ducketts ...	23.61	3.70	25	24	...	Milk River ...	1.16	0.60	26	4	5.26
New Market, Police St. ...	17.23	1.84	27	25	...	Clarendon Pk. Ry. St. ...	1.62	0.20	3	11	...
The Bog, New Market ...	24.48	3.76	29	24	...	Victoria Town ...	1.58	0.45	20	4	4.05
Kew Park ...	20.67	3.75	25	28	11.65	Hog Hole, S. Manch. ...	5.44	2.04	5	6	...
Montpelier ...	13.64	2.33	11	23	...	Stone's Hope ...	8.00	2.10	5	7	5.99
Knockalva ...	16.14	1.84	11	25	...	Newport, Manchester ...	8.25	1.80	5	18	5.39
Ramble ...	17.65	2.50	11	16	...	Great Valley, Man. ...	5.17	1.50	5	9	4.49
Petersville ...	10.50	2.32	20	24	10.56	Alligator Pond ...	4.24	1.56	5	9	3.08
Darliston ...	24.60	4.05	30	26	14.62	Southfield, St. Elizabeth ...	3.95	0.80	20	11	...
Bluefields ...	25.13	2.40	27	28	10.96	Lititz ...	5.31	2.17	20	10	...
Whithorn ...	14.59	1.32	3	26	11.74	Torrington ...	3.35	0.90	7	8	4.55
Water Works Pen ...	16.77	2.30	3	26	...	Bethlehem, St. Eliz. ...	4.05	1.15	5	14	4.99
Great Valley, Han. ...	9.39	2.45	4	14	11.79	Santa Cruz ...	16.26	3.14	5	19	8.62
Prospect Park ...	...	...	...	...	...	Pedro Plains Police St. ...	3.95	2.75	1	3	2.53
Fontabelle, Westm. ...	15.51	1.94	30	22	11.28	Mountainside ...	5.27	0.90	5	13	...
Belleisle ...	11.50	1.50	30	19	10.45	Black River ...	8.87	1.54	7	20	5.95
Morgan's Bridge ...	15.37	2.30	30	20	11.70	Font Hill ...	9.95	3.00	28	12	6.06
King's Vale Police St. ...	15.55	3.00	9	23	10.76	Mount Edgecombe ...	11.31	1.57	3	23	8.19
						Sweet River ...	13.60	1.61	25	26	8.75
						Windsor, Sav.-la-mar ...	14.51	1.90	28	23	7.38
						Orchard ...	12.87	1.45	25	24	...
						Sav.-la-mar ...	12.66	2.20	25	24	7.49
						Little London ...	12.00	1.70	24	20	...
						Retreat ...	15.14	3.40	7	22	8.70
						Negril Point L.H. ...	12.07	2.28	24	26	6.76
Mean	12.20	...	...	...	...	Mean	5.91	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	AUGUST.	
	1917.	Average.
	In.	In.
North-Eastern Division ...	6.55	7.71
Northern " ...	5.40	4.83
West-Central " ...	12.20	9.88
Southern " ...	5.91	5.14
• The Island ...	7.52	6.89

SHOCKS OF EARTHQUAKE IN AUGUST, 1917.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
9	hr. min. midnight.	I	Kingston : NNE. 0.010.
30	II a.m.	I	Port Maria, Unity Valley, Windsor Pen, Trel.

The heaviest rainfall 25.13 inches was recorded at Bluefields in the W.C. division: the smallest 0.27 at the Quarantine Station. There was a good deal of destructive lightning, and some deaths occurred in consequence.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

55.05
LA

No. 474.

UNIVERSITY OF ALABAMA

NOV 20 1917



R E P O R T

ON

THE HURRICANE IN JAMAICA.

SEPTEMBER 23RD 1917.



R E P O R T

ON THE

HURRICANE OF SEPTEMBER 23rd, 1917.

On the 22nd at 7 a.m. it was observed that there was a fall of half a tenth in the barometric pressure at the east end and of two or three hundredths at the west end, and the following telegram was sent from Kempshot at 9 a.m. to Mr. J. F. Brennan in Kingston:—

“Small depression apparently close to Morant. If bar. still falling at noon, warn Island. United States Weather Bureau will probably give information of a large depression further east.”

At 9 30 a.m. Mr. Brennan issued the following circular:—

“From local observations depression apparently developing E.S.E. of Jamaica. Expect N.W. winds over east end of Island. Further notice will be issued to-day.”

At 2 p.m.:—“Wireless message at 1 p.m. indicate a depression S. of San Domingo moving W.N.W.; development awaited. Further notice at 4 p.m.”

At 4 p.m.:—“From local observations depression S. of San Domingo appears to be curving N.W. but caution advised.”

But this was not so, and the barometers continuing to fall showed that the depression was still on its W.N.W. course.

It reached the east end of Jamaica at 2 a.m. on the 23rd. There were then two small centres, 15 miles apart and about 5 or 6 miles in diameter. These passed along the whole length of the Island from 2 a.m. to 11 a.m. at about 17 to 20 miles per hour.

After leaving Jamaica they moved at a slower rate, increasing in intensity. The north centre following a N.W. course passed over the Lesser Cayman Islands and passing close to Havana during the night of the 25th as a terrible hurricane, reached the W. Coast of Florida on the 27th (see chart 1). The south centre moving a little W. of N.W. and even slower than the north one, passed over Grand Cayman at noon on the 24th wrecking almost every house, destroying many of the cocoanut palms besides sinking or driving ashore almost all the schooners in the harbours there. It struck the Isles of Pines on the 26th causing some loss of life and much damage to the sailing vessels and property; was 75 miles S. of New Orleans early on the 28th, and went ashore between that city and Pensacola; but owing to previous experience of tropical hurricanes and extensive warnings of the approach of this one, no loss of life occurred and practically no damage was done to property.

It is unlikely that there were two centres when the depression was forming S. of San Domingo; probably on coming within the influence of our Blue Mountain Range it split in two, one centre passing north and one south of the range, and both moving parallel to it. The two centres reached the east end of the Island at 2 a.m. on the 23rd as has already been said. The south centre moving throughout at a uniform velocity of $17\frac{1}{2}$ miles per hr. struck the Island between Morant Point and Port Morant, (chart 2) passing over Morant Bay where the wind was from the N.E. and of hurricane force till 3 a.m., when the calm central area passing to the N. of and just touching the town, there was a lull of a few minutes, the wind then turning S.E. The north centre either stopped or moved very slowly from 2 to 3 a.m., on approaching the N.E. Point, and the town of Port Antonio and other places suffered severely as the wind near this centre was also of hurricane force. It subsequently rushed inland and moving at the increased rate of 20 miles per hr. drew level with the S. centre at about 4.40 a.m., when the latter was between Kingston and Stony Hill; the bar. falling at to 29.14 inches and there being a calm interval of about 15 mins. due to this centre at both places. The two centres then moving together caused a long continued calm at Stony Hill till 5.10 a.m. when the wind would still have been N.W. to the north centre and S.E. to the south centre. Both centres passing to the westward of Stony Hill by 5.15 a.m. the wind turned S. at 50 miles per hr.

The same thing occurred at and near Linstead at 6 a.m. The north centre still moving at 20 miles per hr. now passed ahead of the south one; but rapidly decreasing in intensity and being far inland, did no damage to the northside towns. It reached Kempshot at 8.30 a.m. There was practically no wind till 9 a.m. when this centre having passed and the south centre being then nearly S. of Kempshot the wind was strong, though not of hurricane force, from the S. The south centre passed over Siloah at 9 a.m. and was S. of Cambridge shortly after. The latter place was not within the calm area, so the wind changed from N.W. to S.E. without any lull and blowing steadily at 40 to 50 miles an hr. did a great deal of damage to cultivations. It finally passed out N. of Negril Point Light House at 11 a.m. where the wind rose to 80 miles per hr. soon after.

These two centres of course produced a good deal of apparent confusion in the direction of the wind at almost every place in the Island; but generally speaking there was little or no wind until both centres had passed a place, when the S. and S.E. winds blew sometimes with hurricane force. After entering on the land their intensity greatly diminished so that while the east end suffered severely from separate or joint effects, the west end hardly suffered at all; but the 40 or 50 miles of wind continually maintained of course destroyed the bananas.

Details are here given and also the observations made at the different stations; those affected by the Southern centre are given first.

OBSERVATIONS.

In the following tables the Mercurial barometers (stand.) have been reduced to all the standards of temperature, level, gravity and Kew; the Aneroid barometers were reduced by comparing their reading with standards at other places when the storm was yet distant. And all readings have been further corrected for diurnal variation.

MORANT POINT LIGHT HOUSE—Mr. Chas. Durrant.

Owing to the destruction of the house, when the doors and windows were blown in and the roof lifted all notes of bar. readings, etc., were lost.

All day on the 22nd the wind was N.W. rain squalls beginning at 2 p.m. At 8 p.m. the wind turned N.E., to the southern centre, attained "hurricane" force about midnight, though the greatest strength was between 1.30 a.m. and 3 a.m. when the centre was S. of and close to Morant. At 2.40 a.m. the wind turned E.S.E. as the centre passed, still blowing "hurricane" force and finally turned S.E.

KINGSTON.—Mr. J. F. Brennan.

Day.	Hour.	Bar. Stand.	Wind.		Notes.
		in.			
22	3 p.m.	29.779	S	8	
	4 "	.767	S	6	
	6 "	.751	SE	2	
	7 "	.738	E	3	NE at 6.30 p.m.
	9 "	.734	NW	2	
	10 "	.738	SW	3	
	11 "	.723	E	2	
23	1 a.m.	.688	NW	4	
	3 "	.504	NW	24	
	3.30 "	.452	NW	28	
	4 "	.325	NW	48	
	4.45 "	.149	W	8	Centre passing to N. Lowest bar.
	5 "	.279	W	20	
	5.30 "	.475	S	50	S at 5.15 a.m.
	6 "	.549	S	36	
	7 "	.634	SE	50	Heavy rain.
	9 "	29.853	SE	36	

Distant lightning all through the night with rain squalls.

GLENMORE LODGE, KINGSTON.—Mr. J. R. Scotland.

Day.	Hour.	Bar. Stand.	Wind.		Clouds: Notes.
		in.			
22	7 a.m.	29.831	Z	0	Cir. NE
	9 "	.793	Z	0	Cir. E. Fine.
	3.30 p.m.	.774	SE	0	Cir.-str. E. Half of E sky covered.
	5 "	.758	Z	0	Cir. ESE str.-cum. NNE.
	11.15 "	.737	N	4	10 nimb. NE.
	Midnt.	.708	N	4	No rain yet.
	1 a.m.	.699	N	4	Rain at 12.40 a.m. 10 nimb. NNE fast.
23	2 "	.662	N	6	" " "
	3 "	.557	NW	15	" " " N.
	4 "	.304	NW	45	"
	4.30 "	.150	WNW	55	Heavy rain squalls—Gusts 60 m.p.h.
	4.35 "	.146	Z	0	Light rain. Lowest bar. Calm area.
	4.50 "	.195	SW	10	Light rain. Calm of 10 min.
	5 "	.299	W	15	Rain. Low clouds S.
	5.30 "	.485	SSW	50	Heavy rain squalls.
	6 "	.590	S	25	Rain.
	7 "	.666	SE	45	Heavy rain squalls.
	8 "	.731	SE	30	Rain.
	9 "	.769	SE	15	"
	11 "	29.787	SE	10	Clearing.

Rainfall 7 a.m. 22nd. to 7 a.m. 23rd.—1.36 inches.

The wind velocities were taken from the record of a self-registering Anemometer at the times of observation. The max. velocity was 69m. p.h., at 4.20 a.m., just before the calm.

BAVINGTON, STONY HILL.—Rev. F. Bavin.

Day.	Hour.	Bar. Stand.	Wind.		Clouds. Notes.
		in.			
22	7 a.m.	29.825	N	9	9 str.-cum.
	3 p.m.	.780	N	7	8 str.-cum.
	10 "	.719	N	8	10 str. nimb. Light rain.
23	2.30 a.m.	.584	N	29	10 str. Strong gusts.
	3.30 "	.419	N	44	10 str. nimb. Violent gusts and rain squalls.
	4.30 "	.265	NW	40	10 nimb. Very heavy gusts.
	5.00 "	.144	Z	0	Heavy mist. Lowest bar.
	5.30 "	.284	S	48	10 nimb. Heavy gusts and rain.
	6.30 "	.528	S.	53	10 str. Scud, rain.
	7.30 "	.655	SE	38	10 str. Moderating.
	8.30 "	.706	SE	16	10 nimb.
	3 p.m.	29.816	SE	12	10 str. cum.

Rainfall 7 a.m., 22nd to 7 a.m. 23rd, 5.71 inches.
Rainfall 7 a.m. 23rd to 7 a.m. 24th, 2.86 inches.

SAVOY, near Chapelton.—Mr. R. Craig.

Day.	Hour.	Bar. (Aneroid.)	Wind: notes.
		in.	
23	2 a.m.	29.77	
	4 "	.68	
	5.30 "	.51	NW Strong. Heavy continuous rain till noon.
	6.10 "	.36	" " " "
	6.35 "	.34	W " " "
	7 "	.38	S. very strong. " " "
	7.30 "	.46	S by E very strong.
	8 "	.53	S.E lessening.
	9.30 "	.60	SE. Very high.
	10 "	.64	SE. Very high.
	noon	.69	SE lessening.
	1 p.m.	29.70	Rain and wind ceased. Sky clear to S.E.

WOODLAWN, MANDEVILLE—Prof. W. H. Pickering.

Day.	Hour.	Bar. (Aneroid).	Wind: Notes.
		in.	
22	3 p.m.	29.79	
	9.45 "	.76	Light rain. Lower clouds N.
23	4.45 a.m.	.66	
	7 "	.45	
	8.45 "	.60	
	10.30 "	.68	SE 10.
	4 p.m.	29.79	" " S.

NEGRIL POINT LIGHTHOUSE—Mr. J. S. Brownhill.

Day.	Hour.	Bar. Stand.	Wind.	Clouds: notes.
22	9 p.m.	in. 29.775	N 12	10 cir.-str.
23	7 a.m.	.648	N 12	10 stratus. Scud from N. rapid.
	8 "	.619	N 20	10 " " "
	9 "	.561	N 24	10 " At 9.15 a.m. squalls. Wind 40 m.p.h.
	10 "	.479	NW 40	10 stratus. Rain squalls from N.W.
	11 "	.430	NW 40	At 11.15 a.m. wind turned W.
	noon	.506	S.W 46	At 11.30 a.m., it was S.W.
	1 p.m	.591	S 61	10 stratus. Rain squalls.
	2 "	.633	S 80	At 12.15 p.m. Wind S. 60 m.p.h.
	3 "	.670	S 70	10 nimbus. Heavy rain squalls.
	4 "	.697	S. 60	" " Hurricane.
	5 "	.704	SSE 36	10 stratus. "
	7 "	.736	E 41	10 nimbus. Rain.
	9 "	.744	E 30	" " "
24	7 a.m.	29.777	SE 30	" " Rain squalls.
				10 stratus. Rain squalls.

Rainfall, 7 a.m. 23rd to 7 a.m., 24th—4.64 inches.

Wind, 7 a.m., 23rd, to 7 a.m. 24th—1,030 miles.

The following stations are those chiefly affected by the Northern centre:—

PORT ANTONIO.—Mr. W. L. Mudon.

Day.	Hour.	Bar. (Aneroid.)	Wind: Notes.
22	2 p.m.	in. 29.76	NW
	6 "	.77	" gentle breeze.
	10 "	.75	S pleasant breeze.
23	1.15 a.m.	.67	N.
	1.45 "	.65	N. Some Cirrus. E.
	2 "	.63	N. Storm. Light rain.
	2.30 "	.61	" " Rain squalls.
	3 "	.59	" " " Lightning.
	3.15 "	.54	" Great Storm. Lightning.
	3.25 "	.50	" " " Heavy gusts.
	3.40 "	.42	E. " "
	3.50 "	.37	" Hurricane. Rain.
	3.55 "	.24	" " Lowest bar.
	4 "	.29	" " Heavy gusts.
	4.15 "	.37	SE Hurricane.
	4.40 "	.38	SE Great storm. Heavy gusts.
	5 "	.46	SE Storm. Light rain.
	5.40 "	.57	SE Moderating.
	10 "	29.68	SE Light breeze.

Rainfall 7 a.m. 22nd, to 7 a.m. 23rd—13.00 inches.

Raingauge overflowed. Temperature from 1 a.m.—84° falling to 76° at 5 a.m.

MT. HOLSTEIN.—Mr. A. Benn.

Day.	Hour.	Bar. (Aneroid).	Wind: Notes.
		in.	
22	7 a.m.	29.82	
	6.30 p.m.	.74	Squall. Clouds NE.
	9.30 "	.78	Rain and wind. N. to N.W.
23	1.30 a.m.	.70	Violent gusts.
	3 "	.54	
	3.30 "	.50	
	4 "	.32	
	4.30 "	.35	
	4.50 "	.45	Wind turned S.
	5 "	.45	
	6 "	.60	
	7.30 "	.68	
	9 "	29.70	

Rainfall 7 a.m. 22nd to 7 a.m. 23rd—4.10 inches.

Rainfall 7 a.m. 23rd to 7 a.m. 24th—2.15 inches.

KEMPSHOT OBSERVATORY—Miss C. Maxwell Hall.

Day.	Hour.	Bar. Stand.	Wind.	Clouds: Notes.
		in.		
22	7 a.m.	29.868	NE 1	3 str. NNE; 1 cir E. Anem. 260.
	noon	.813	Var. 1	1 str. E; 1 cir E.
	3 p.m.	.808	NE 5	Fine.
	6.30 p.m.	.776	N 1	10 cir. stripes E.S.E. The whole sky was covered with these stripes lying ESE and WN.W. and moving along their length.
23	11 p.m.	.795	E 4	10 nimbus. Thunderstorm.
	2 a.m.	.755	N 6	10 str. and nimb. Rain squalls.
	3 a.m.	.730	E 20	10 fog. Wind in gusts.
	5 a.m.	.697	E	10 str. E. Anem. 348.
	7 a.m.	.562	N 12	10 fog. Anem. 378.
	7.30 a.m.	.507		Wind variable.
	8 a.m.	.422	NW 14	Heavy gusts. Anem. 392.
	8.15 a.m.	.380	W 20	
	8.30 a.m.	.379	Z 0	Lowest bar. Calm 8.30–8.45 a.m. Light rain.
	8.45 a.m.	.407	SE 3	Rain.
	9 a.m.	.442	SE 40	Gusts hurricane force. Anem. 405.
	9.30 a.m.	.473	SE 40	Violent gusts. Heavy rain.
	10 a.m.	.547	SE 40	Less rain. Anem. 445.
	11 a.m.	.620	SE 45	Heavy gusts. Steady wind. Anem. 490.
	noon	.622	S 30	Violent gusts. Anem. 520.
	3 p.m.	29.741	SSE 10	Heavy rain.

Rainfall 7 a.m. 22nd to 7 a.m. 23rd 0.58 inch.

Rainfall 7 a.m. 23rd to 7 a.m. 24th 1.19 inch.

Wind. The Robinson Anemometer was read every hour and the miles of wind shown in the 4th column were taken from it. 7 a.m. 22nd to 7 a.m. 23rd 522 miles.

BLUE HOLE, Sandy Bay—Mr. E. E. Melville.

Sept. 22nd	11.30 p.m.	Thunderstorm passed from N.E.
23rd	6 a.m.	Strong N.E. wind, increasing.
	7.30 a.m.	to a gale.
	8.30 a.m.	gale.
	9 a.m.	Wind decreasing and varying.
	11.30 a.m.	through E. to S.
	noon	Strongest wind.
	Later	Decreasing.

At 9.30 a.m. the wind should have turned S.E. to the northern centre which had just passed to the N. but was kept down and variable by the south centre's approach. When that passed by about 11 a.m. the wind turned S. increasing in strength though never reaching hurricane force.
Rainfall 6 p.m. 22nd to 6 a.m. 24th 8.42 inches.

NOTES.

Mr. Maxwell Hall was ill in Montego Bay at the time of the hurricane, and the writer, being in the position of an isolated observer with a falling barometer, tried the principle, already shown in previous Hurricane Reports, that

$$\text{Time of arrival of central calm} = \frac{\text{Fall below mean.}}{\text{Twice hourly rate of fall.}}$$

with the result that I found, the centre was coming straight on, was due here at 8.30 a.m., but by 7 a.m. the wind not having risen to any great extent, it could not be anything very large. This information was telephoned to Montego Bay at 7 a.m. and the following table shows the deductions and results:—

Kempshot. Mean bar. 29.885 inches.

Day.	Hour.	Bar. Stand.	Fall below mean.	Twice hourly rate of fall.	Time of arrival.
23		in.	in.	in.	
	2 a.m.	29.755	0.130		
	3 a.m.	.730	.155	0.040	7 a.m.
	4 a.m.	.715	.170	.033	9 a.m.
	5 a.m.	.697	.188	.054	8.30 a.m.
	6 a.m.	.661	.224	.135	8.30 a.m.
	7 a.m.	.562	.323	0.239	8.30 a.m.
	8 a.m.	29.422	0.463		

Calm began at 8.30 a.m. and lasted 15 minutes.

EARTHQUAKE.

There was a No. IV shock of earthquake at the east end at 2 a.m. on the 23rd from the Epicentre U which is about 7 miles N.W. of Morant Bay. It cracked the walls of the Cable Station at Holland Bay where it was felt by Mr. R. R. Williams. How far to the N. and S. it might also have been felt and to what extent the damage done to the east end during the hurricane was due to its influence it is impossible to say.

CHARLOTTE MAXWELL HALL.

Asst. Govt. Meteorologist.

The Weather Office,
Montego Bay,
October 13th, 1917.

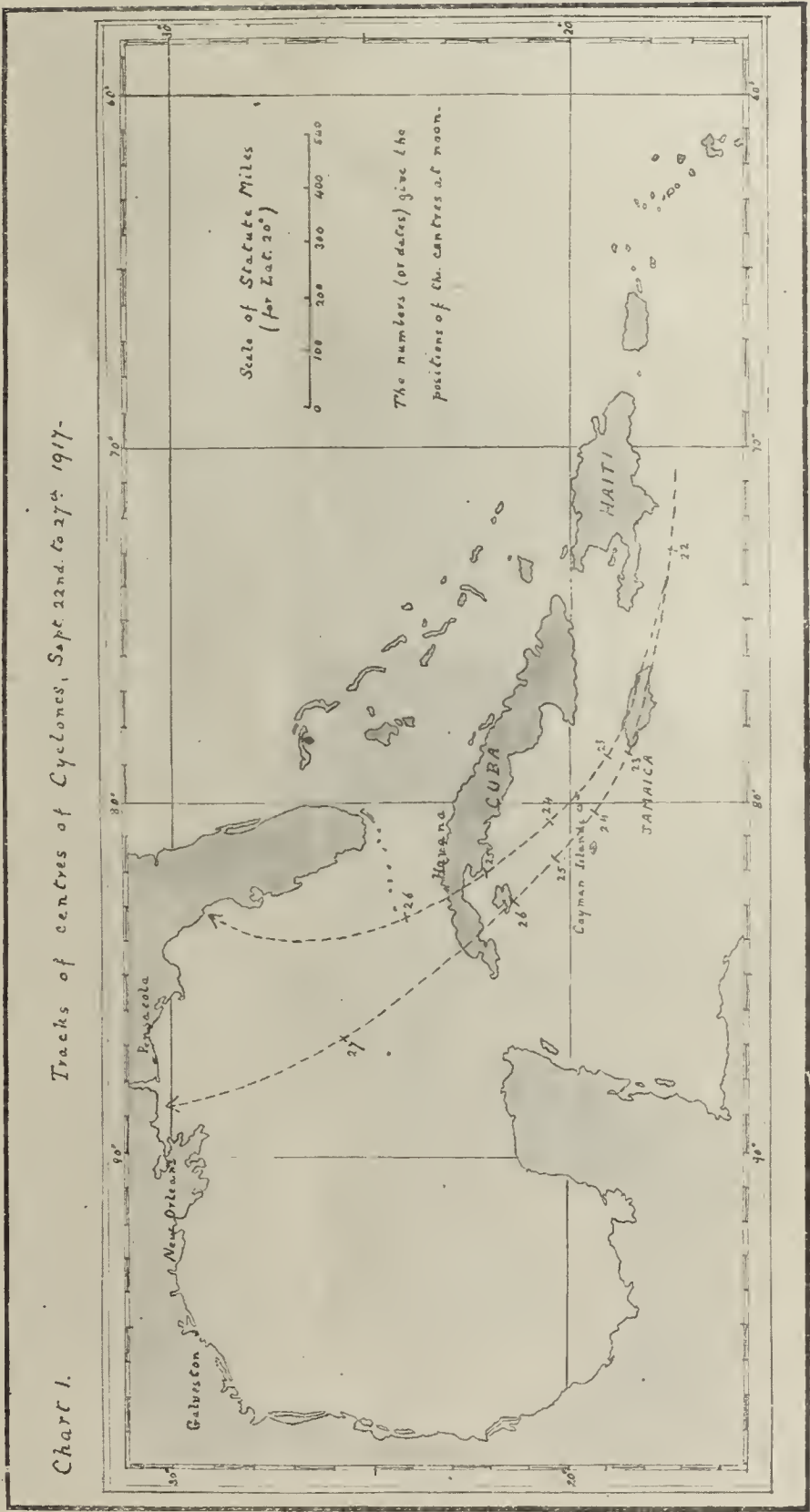
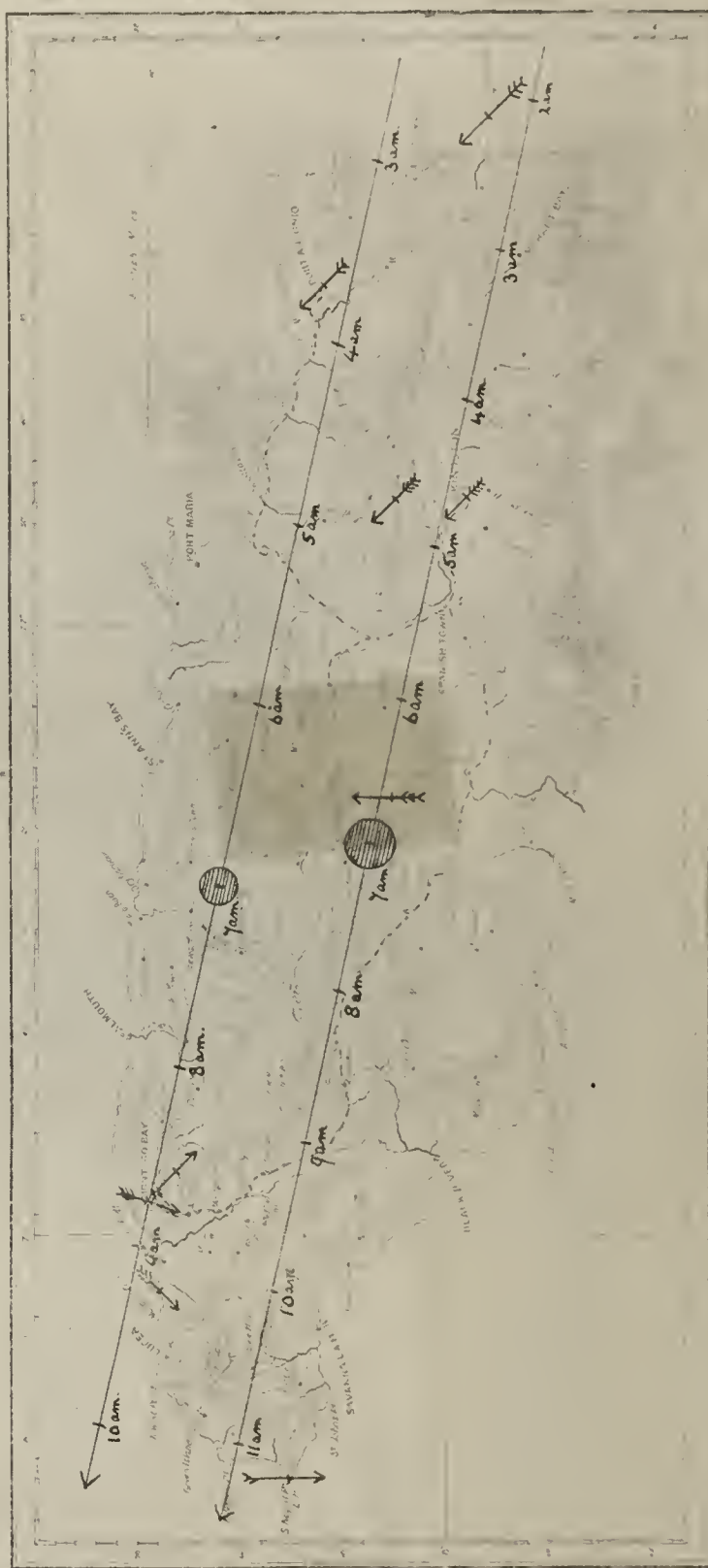


Chart 2.

1917 SEPTEMBER 23rd. 7am.



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JAMAICA

WEATHER REPORT

FOR THE MONTH OF
SEPTEMBER, 1917.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky ; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
		in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light-House	8	29.923	29.890	80.5	83.4	86.0	75.6	10.4	88.0	5*	71.0	14	17.0
Kingston	24	29.900	29.870	75.1	83.6	87.4	72.6	14.8	91.2	5	70.3	11	20.9
Negril Point Light House	33	29.896	29.860	77.3	83.5	86.2	73.1	13.1	89.5	9	70.4	10	19.1
Castleton Gardens	496	..	..	69.7	79.8	85.3	68.7	17.6	91	4	65	4*	26
Hope Gardens†	668	..	..	73.6	85.8	90.4	71.7	18.7	92	5	85	22	27
Bavinton, Stony Hill**	1,349	29.916	29.874	71.1	77.5	81.8	67.8	14.0	87.5	9	64.5	4	23.0
Stony Hill Indus. School	1,400	..	..	71.0	79.8	81.1	67.9	13.2	86	9	66	9*	20
Hill Gardens	4,900	..	..	..	..	..	..	..	..	..	..	..	..

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.					Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper					
		7 a.m.		3 p.m.					7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		°	°											L.	M.	U.	L.	M.	U.
Morant Pt. Light House	8	73.3	79	73.4	72	15.59	222	Var	12	E	13	3.0	1.7	1.5	2.0	2.6	0.7	
Kingston	24	71.1	87	73.3	71	8.00	203	E	6.9	SE	13.4	1.4	1.4	2.4	4.4	1.5	2.2	
Negril Point Light House†	33	71.6	82	73.4	71	7.33	272	E	9.3	SE	13.8	1.3	0.8	3.4	2.0	5.1	1.1	
Castleton Gardens	496	67.9	93	74.2	81	25.95	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	67.6	81	72.4	71	19.60	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	67.4	88	70.7	80	20.76	..	SSE	3.1	S	5.3	2.1	1.1	2.1	6.0	2.2	0.3	
Stony Hill Indus. School	1,400	67.0	87	68.0	67	21.70	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	4,900	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

* and on other days.
† Negril Point Light House. Wind 11 p.m. E 9.1
** Bavinton, Stony Hill. Mean Min. temp. on grass 64.9
Earth temp. 1 ft. below surface 77.7
" 4ft. " " 77.5

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	SEPT., 1917.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount	Date.		
	In.	In.			In.
Mauchioneal	8.00	2.45	24	7	10.88
Spring Valley	19.16	6.55	22	19	...
Bath	24.88	9.30	22	17	12.63
Priestman's River	15.65	5.30	22	17	...
Moore Town	22.40	8.10	22	9	14.21
Port Antonio	13.60	4.10	23	17	10.43
Fellowship	15.45	6.07	23	21	12.93
Johnson River Bridge	19.36	6.18	22	23	11.48
Shrewsbury	11.80	4.50	23	8	10.31
Cedar Valley, St. Thos.	33.45	9.10	22	21	13.40
Hope Bay	6.45	2.05	22	16	...
Moy Hall, St. Thos.	39.20	12.20	23	21	10.92
Brooklodge	33.52	11.00	22	24	...
Lennox	...	...	...	...	...
Farm Hill	35.59	12.50	22	12	10.00
Hill Gardens	25.77	11.25	22	22	9.84
Buff Bay	5.81	1.23	10	15	4.94
Vinery	2.30	0.50	8	9	5.14
Windsor Castle, Port.	...	...	...	...	...
Greenvale, Portland	15.79	4.30	22	18	8.49
Mt. Holstein	20.73	4.10	22	29	9.02
Irish Town	17.33	7.00	22	13	9.52
Rose Hill	...	...	...	...	...
Hardware Gap	23.00	...	...	...	9.02
Stony Hill Ind. School	21.70	6.23	22	21	9.82
Castleton Gardens	25.91	6.75	30	25	11.21
Lawrence Tavern	21.28	6.00	22	22	9.53
Cedar Valley, Red Hills	11.97	3.70	22	15	...
Zion Hill	23.35	5.75	22	15	...
Agualta Vale	10.00	2.09	23	12	4.61
Water Valley	8.55	1.85	22	19	5.98
Albany, Ry. Station	...	...	...	...	...
Platfield	...	...	...	...	...
Richmond, St. Mary	15.42	3.73	22	20	5.59
Highgate	21.24	3.55	22	19	...
Hampstead, St. Mary	17.20	2.38	16	15	6.90
Guy's Hill	11.55	3.00	2	9	...
Lucky Hill	14.01	1.85	23	21	...
Rio Hoe	12.91	4.00	22	14	6.28
Unity Valley	17.58	6.08	23	15	8.20
Moneague	20.82	8.12	23	12	7.14
Claremont	20.33	6.20	22	14	5.31
Albion, St. Ann	12.34	2.17	24	21	6.98
Averham Park	11.89	4.85	22	15	4.83
Mean	18.34	...	...	...	...

NORTHERN DIVISION.	SEPT., 1917.				
	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In	In.			
Port Maria	4.83	1.04	23	15	3.88
Ocho Rios	9.85	2.45	23	13	3.93
Bogue, Ocho Rios	...	...	...	...	...
Rockfield	7.70	3.59	23	10	...
Drax Hall	6.97	2.90	23	7	3.98
Liberty Hill	7.03	4.24	23	8	3.55
St. Ann's Bay	8.86	3.18	23	12	3.31
Seville	...	...	...	...	...
Richmond Estate	...	...	...	...	...
Llandoverly	5.27	2.69	23	6	3.72
Runaway Bay	4.07	1.64	7	9	...
Brown's Town	9.44	4.17	23	14	5.30
Alexandria	10.58	3.15	23	10	...
Watt Town, St. Ann	10.90	4.00	23	17	7.41
Home Castle	5.95	2.90	22	13	4.56
Richmond Pen	9.06	2.67	30	13	5.88
Mahogany Hall	11.93	3.85	6	15	6.97
Barnstaple	6.57	5.60	6	7	...
Bryan Castle	7.30	2.05	6	10	3.44
Braco	5.50	1.75	22	7	3.31
Arcadia	10.50	3.40	6	9	3.02
Lancaster	8.18	1.73	22	9	3.64
Harmony Hall	5.50	1.25	22	11	3.89
Vale Royal	7.41	2.27	6	9	4.64
Colchis Pen	6.71	1.40	6	13	5.23
Swanswick	11.95	2.00	15	12	...
Georgia	9.72	3.73	6	15	...
Long Pond	9.37	2.45	6	15	...
Duncans	...	...	...	...	...
Hyde Hall	10.45	1.40	22	11	...
Steelfield	9.33	3.09	6	11	...
Etingdon	5.35	1.00	18	9	...
Lottery	7.75	2.40	23	12	4.38
Falmouth	4.69	3.82	6	12	3.46
Florence Hall	7.60	2.48	6	10	...
Good Hope	9.15	2.00	22	15	...
Unity	...	...	...	...	...
Kent	...	...	...	...	...
Canaan	16.19	2.61	23	27	7.96
Content	10.95	1.48	23	18	...
Bellfield	...	...	...	...	...
Gulibro	15.27	2.83	25	25	7.91
Glasgow	7.77	2.75	23	13	...
Moor Park	9.12	3.00	23	14	6.13
Rose Hall	...	...	...	...	...
Running Gut	...	...	...	...	...
Cinnamon Hill	...	...	...	...	...
Success	...	...	...	...	...
Spring Estate	7.57	1.83	23	9	4.30
Montego Bay	9.97	2.76	23	20	6.91
Catherine Hall	8.99	2.38	23	20	8.23
Friendship	10.71	2.20	23	19	...
Retirement	12.96	2.65	23	19	...
King Gate	17.09	3.60	23	26	7.04
Blue Hole	13.89	8.42	24	7	...
Haughton Court	13.90	4.50	22	13	6.38
Lucea	13.99	4.30	23	10	7.68
Green Island	14.07	6.40	23	14	...
CENTRAL SUB-DIVISION.					
Rio Magno	16.82	3.00	23	12	...
Headworks, Rio Cobre	15.23	4.75	23	14	6.54
Linstead	23.14	8.40	22	16	8.01
Berkshire Hall	16.98	5.65	23	20	5.53
Point Hill	22.91	6.05	23	13	11.54
Marlie Hill	22.42	10.00	23	16	...
Worthy Park	18.41	6.93	23	13	7.56
Croft Hill	18.07	4.16	22	16	...
Chapelton	18.59	4.46	25	16	7.91
Danks Works	16.22	4.95	25	17	9.36
Savoy House	16.37	5.40	25	17	9.35
Crooked River	...	...	...	...	...
Trout Hall	18.85	6.20	23	12	...
Frankfield	17.42	5.08	23	14	...
Cave Valley	...	...	...	...	...
Mean	10.91	...	...	...	...

WEST-CENTRAL DIVISION.	SEPT., 1917.					SOUTHERN DIVISION.	SEPT., 1917.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.			In.	
Whitney ...	26.95	4.65	24	16	11.09	Morant Point L. H. † ...	15.59	5.00	22	24	7.31
Mocho, Clarendon ...	21.13	6.00	23	10	10.50	Elliott Hill ...	...	...	...	...	...
Spaldings ...	24.62	6.00	23	23	...	Pleasant Hill † ...	No	record.	...	...	...
Tan-y-bryn ...	18.18	4.35	24	21	...	East Prospect ...	15.86	4.05	30	20	8.06
Brokenhurst ...	33.15	6.42	23	20	9.33	Morant Bay ...	15.20	5.71	22	20	8.41
Christiana ...	19.36	7.00	23	15	9.97	Easington ...	...	...	...	...	...
Chudleigh ...	24.74	7.55	23	22	10.86	Bull Bay ...	11.98	3.72	22	8	4.70
Shooter's Hill ...	22.03	5.85	23	23	...	Bellevue ...	22.42	...	...	22	...
Spitzbergen ...	28.55	5.96	22	19	...	Gordon Town ...	18.34	7.54	22	15	8.57
Kendal, Manchester ...	27.76	6.24	22	15	9.53	Hope Gardens ...	...	...	...	...	...
Marshall's Pen ...	19.02	7.19	23	17	8.79	King's House Gardens ...	12.86	6.63	22	7	5.03
Mandeville ...	19.33	6.17	23	23	10.04	Melrose ...	12.52	3.82	22	15	...
Carlton, Mandeville ...	16.35	4.92	23	17	10.04	Halfway Tree ...	13.91	3.50	22	14	5.09
The Hill ...	20.84	5.00	23	16	...	Lunatic Asylum ...	8.08	1.52	1	17	4.72
Fairfield, Manchester ...	15.93	5.17	23	20	7.80	Glenmore Road ...	9.88	2.43	23	18	...
Mile Gully ...	12.71	4.00	24	14	...	Kingston P. W. Office ...	8.00	2.39	23	16	4.18
Ulster Spring ...	17.59	3.25	22	15	8.44	Plumb Point L. H. ...	11.26	2.23	1	18	3.81
Freeman's Hall ...	14.40	2.80	23	18	...	Ferry ...	...	...	...	...	...
Albert Town ...	13.46	3.05	22	9	11.20	Clifton Pen ...	10.21	3.25	22	8	...
Lowe River ...	24.89	4.08	23	14	10.21	Quarantine Station ...	7.12	2.60	23	11	...
Troy ...	19.38	4.15	23	13	13.77	Spanish Town ...	11.03	3.88	23	13	5.30
Windsor Pen, Trel. ...	7.64	1.65	22	18	9.06	Hog Hole, St. Catherine... ..	11.50	4.49	23	13	6.33
Medina ...	12.23	5.50	23	14	...	Hartlands ...	11.40	2.10	5	12	4.79
Wallingford ...	...	...	...	...	...	Belmont, Guanaboa Vale ...	28.70	7.50	23	17	...
Balaclava Police Station... ..	18.97	6.18	23	16	10.31	Old Harbour ...	13.47	1.90	14	15	6.45
Siloah ...	13.30	5.50	23	18	13.46	May Pen ...	12.47	3.30	22	13	7.89
Appleton Estate ...	12.34	7.50	23	22	11.50	Happy Hut ...	10.42	4.10	23	7	...
Maggotty ...	19.46	10.02	23	16	11.84	Hillside ...	...	...	...	...	...
Butlers ...	18.80	8.05	23	17	...	Moreland ...	12.34	2.53	8	17	6.20
Dromilly Pen ...	15.34	3.70	24	16	...	Money Musk ...	...	...	...	...	...
Spring Vale ...	13.02	3.85	24	12	12.59	Dunkley's, Vere ...	14.47	3.57	23	11	6.42
Garland ...	...	...	...	...	...	Dry River " ...	9.53	2.60	23	15	5.32
Mocho, Catadupa ...	19.03	9.13	23	18	...	Denbigh ...	11.00	4.00	23	4	5.99
Springfield, St. Elizabeth ...	...	...	...	...	...	Toll Gate ...	22.45	5.70	25	18	...
Chesterfield, St. James ...	22.05	6.80	23	19	...	Woodleigh ...	10.50	4.20	23	4	...
Catadupa Rly. Station ...	20.42	7.10	23	22	14.56	New Yarmouth ...	10.70	1.96	24	12	5.73
Kempshot ...	12.37	1.61	14	24	9.64	Exeter, Vere ...	10.70	2.75	24	15	4.80
Cambridge, St. James ...	15.71	4.23	23	18	...	Rhymesbury ...	...	...	...	...	...
Ducketts ...	22.09	6.81	23	19	...	Milk River ...	23.84	5.90	25	16	6.33
New Market, Police St. ...	10.72	1.92	24	17	...	Clarendon Pk. Ry. St. ...	22.92	4.07	22	18	7.76
The Bog, New Market ...	25.57	5.50	23	21	...	Victoria Town ...	19.89	4.50	25	12	7.48
Kew Park ...	...	...	...	...	...	Hog Hole, S. Manch. ...	24.96	8.15	23	14	...
Montpelier ...	15.22	5.27	23	21	...	Stone's Hope ...	21.39	5.32	23	14	8.30
Knockalva ...	22.31	6.37	23	23	...	Newport, Manchester ...	23.44	7.77	23	24	7.49
Ramble ...	22.05	3.50	22	18	...	Great Valley, Man. ...	12.37	2.37	25	19	6.63
Petersville ...	18.97	8.95	23	19	9.83	Alligator Pond ...	13.60	3.60	23	13	4.98
Darliston ...	19.65	9.61	23	19	13.79	Southfield, St. Elizabeth ...	14.05	5.86	22	15	...
Bluefields ...	14.13	3.34	23	17	11.04	Lititz ...	11.66	2.70	25	19	...
Whithorn ...	11.09	2.15	23	22	12.00	Torrington ...	17.70	9.00	23	10	6.42
Water Works Pen ...	18.30	8.50	23	20	...	Bethlehem, St. Eliz. ...	15.17	6.08	23	15	6.78
Great Valley, Han. ...	...	...	...	...	...	Santa Cruz ...	12.44	4.82	23	22	10.38
Prospect Park ...	...	...	...	...	...	Pedro Plains Police St. ...	6.21	3.65	23	12	4.90
Fontabelle, Westm. ...	18.42	10.07	23	16	10.90	Mountainside ...	10.97	7.00	23	14	...
Belleisle ...	...	...	...	...	...	Black River ...	11.75	5.48	23	11	5.75
Morgan's Bridge ...	19.29	9.50	23	12	12.18	Font Hill ...	11.95	4.65	23	11	7.11
King's Vale Police St. ...	16.05	3.25	23	15	11.44	Mount Edgecombe* ...	15.96	7.25	23	20	5.39
						Sweet River ...	15.24	6.00	23	17	7.83
						Windsor, Sav.-la-mar ...	19.07	9.95	23	14	7.26
						Orchard ...	19.20	10.20	23	16	...
						Sav.-la-mar ...	16.93	10.35	23	16	6.96
						Little London ...	10.56	2.72	23	13	...
						Retreat ...	...	...	...	...	...
						Negril Point L.H. ...	7.33	4.64	23	19	7.51
Mean ...	18.42	...	...	...	...	Mean ...	14.05	...	...	...	...

* Gauge overflowed.

† Gauge blown over.

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	SEPT.		Date.	Standard Time (Approx.)		Intensity.	Notes: where felt, etc.
	1917.	Average.					
	In.	In.					
North-Eastern Division	18.34	8.68	16	8	18 p.m.	I	Mt. Holstein; double shock N.E. and S.W. .007.
Northern	10.91	5.70	23	2	0 a.m.	IV	East end of Island.
West-Central	18.42	10.78	28	10	"	I	Siloah.
Southern	15.05	6.49					
The Island	15.43	7.91	29	12	35 "	III	Black River; Siloah and Petersville.

SHOCKS OF EARTHQUAKE IN SEPT., 1917.

The heaviest rainfall 39.20 inches was recorded at Moy Hall; the smallest 2.30 at the Vinery in the NE. division All along the N coast from Hope Bay to Falmouth, very little rain fell in comparison to places even one mile inland.

The No. IV shock of earthquake at the East end was during the passage of the hurricane and so far as I can hear now, was only noticed at the Cable Station, Holland Bay where the walls were cracked by the shock How far and to what extent the damage done at the East end by the hurricane was also due to the shock it is impossible to say. See Report on Hurricane of September 23rd, 1917.

CORRIGENDA—W. R. 472, July 1917, p. 3—Troy; for 6.15 read 5.15.
W. R. 473, Aug., 1917, p. 4—Quarantine Station—2nd column; for 1.12 read 0.12.

CHARLOTTE MAXWELL HALL,
Asst. Government Meteorologist.

Montego Bay P.O.

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JAMAICA

WEATHER REPORT

FOR THE MONTH OF
OCTOBER, 1917.

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The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky ; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
		ft.	in.	in.	°	°	°	°	°		°		°
Morant Pt. Light House	8	29.933	29.877	80.9	84.2	86.0	75.4	10.6	87.0	9*	70.5	20	16.5
Kingston	24	29.911	29.859	73.6	82.9	87.8	71.7	16.1	90.3	6	68.3	24	22.0
Negril Point Light House	33	29.916	29.861	76.1	83.7	86.6	71.6	15.0	89.7	3	69.6	25	20.1
Castleton Gardens	496	..	..	68.4	79.1	88.1	67.4	20.7	90	2*	65	17*	25
Hope Gardens†	668	..	..	72.5	80.6	87.7	69.2	18.5	90	8*	68	4*	22
Bavinton, Stony Hill**	1,349	29.931	29.870	70.0	76.4	81.6	67.3	14.3	84.0	2	65.0	24	19.0
Stony Hill Indus. School	1,400	..	..	71.1	75.9	81.7	67.4	14.3	85	8*	65	18	20
Hill Gardens	4,900	25.228	25.208	64.1	65.0	67.3	56.8	10.5	69	6*	55	23*	14

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		°	°	°	°			m.	m.	L.	M.	U.	L.	M.	U.		
Morant Pt. Light House	8	72.8	76	73.3	70	1.33	..	NE	9.5	ENE	9.0	1.7	1.9	1.5	1.2	1.5	2.5
Kingston	24	69.6	87	73.2	73	2.05	164	NE	3.9	SE	12.7	0.0	0.8	3.1	3.2	1.4	3.3
Negril Point Light House†	33	70.6	82	74.7	74	4.59	177	ENE	6.1	SE	9.8	0.5	0.0	4.6	0.0	7.0	1.5
Castleton Gardens	496	66.6	97	76.2	90	14.64	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	66.5	81	71.5	74	5.83	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	65.7	87	69.0	78	23.33	..	NNE	1.5	SSE	2.5	0.7	0.8	3.0	6.0	1.7	0.5
Stony Hill Indus. School	1,400	65.7	83	69.9	81	24.00	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	4,900	60.5	90	62.0	90	6.44	..	..	..	..	..	..	..	..	..	..	..

* and on other days.
† Negril Point Light House.
** Bavinton, Stony Hill.
† Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
Wind 11 p.m. ENE 7.5
Mean Min. temp. on grass 65.5
Earth temp. 1 ft. below surface 76.6
" 4ft. " " 76.6

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	OCT., 1917.					Average.
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.		
		Amount	Date.			
	In.	In.			In.	
Manchioneal	2.64	0.37	1	14	18.11	
Spring Valley	5.51	1.70	1	14	15.39	
Bath	5.25	0.90	2	14	18.37	
Priestman's River	3.42	0.80	2	12	...	
Moore Town	8.45	2.00	2	9	21.93	
Port Antonio	2.88	0.47	28	11	15.16	
Fellowship	3.65	...	...	13	18.37	
Johnson River Bridge	3.27	0.81	19	13	12.85	
Shrewsbury	...	...	...	...	...
Cedar Valley, St. Thos.	4.51	1.60	1	9	19.97	
Hope Bay	0.48	0.16	28	4	...	
Moy Hall, St. Thos.	6.38	2.60	1	7	19.97	
Brooklodge	4.81	1.23	23	8	...	
Lennox	...	...	...	...	...
Farm Hill	7.75	2.10	16	6	12.59	
Hill Gardens •	6.44	1.63	31	15	18.20	
Buff Bay	1.13	0.74	4	6	11.76	
Vinery	...	...	...	...	...
Windsor Castle, Port.	...	...	...	...	...
Greenvale, Portland	2.14	0.60	4	7	12.45	
Mt. Holstein	8.57	1.74	23	23	12.71	
Irish Town	9.69	2.78	31	5	11.45	
Rose Hill	29.73	3.80	31	20	...	
Hardware Gap	9.00	...	...	...	16.36	
Stony Hill Ind. School	24.00	4.06	15	23	14.38	
Castleton Gardens	14.54	2.48	31	22	15.48	
Lawrence Tavern	13.79	1.95	8	17	12.71	
Cedar Valley, Red Hills	14.70	2.81	31	17	...	
Zion Hill	11.44	2.70	18	17	...	
Agualta Vale	3.36	1.30	24	7	5.66	
Water Valley	2.89	0.55	24	10	8.18	
Platfield	...	...	...	...	...
Richmond, St. Mary	8.15	1.68	22	12	9.83	
Highgate	...	...	...	...	...
Hampstead, St. Mary	9.32	2.38	19	11	9.93	
Guy's Hill	7.64	2.20	1	7	...	
Lucky Hill	5.72	1.16	1	16	...	
Rio Hoe	5.82	1.27	24	13	9.64	
Unity Valley	3.71	0.82	26	10	9.50	
Moneague	4.34	1.14	6	10	9.94	
Claremont	4.18	1.97	8	9	8.41	
Albion, St. Ann	6.82	2.20	15	13	9.02	
Averham Park	4.70	0.86	20	12	9.35	
	Mean	6.65	...	...	Mean	4.73
					</	

WEST-CENTRAL DIVISION.	OCT., 1917.					SOUTHERN DIVISION.	OCT., 1917.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Whitney	9.80	3.50	18	10	15.21	Morant Point L. H.	1.33	0.39	2	14	11.71
Mochó, Clarendon	2.90	1.50	1	4	15.90	Elliott Hill	...	...	...	...	...
Spaldings	4.34	1.60	31	13	...	Pleasant Hill	3.53	0.83	2	...	...
Tan-y-bryn	7.38	2.11	17	16	...	East Prospect	4.43	0.85	20	13	10.99
Brokenhurst	8.44	1.90	1	17	14.94	Morant Bay	2.84	1.00	1	10	14.22
Christiana	4.81	2.18	31	9	12.84	Easington	2.07	0.57	1	8	14.22
Chudleigh	4.34	1.74	31	11	11.73	Bull Bay	2.44	1.15	18	5	10.26
Shooter's Hill	8.14	1.48	23	15	12.51	Bellevue	7.49	1.93	19	11	...
Spitzbergen	8.03	2.13	17	10	...	Gordon Town	10.15	2.05	31	6	14.15
Kendal, Manchester	9.49	2.72	17	10	14.96	Hope Gardens	...	...	...	...	...
Marshall's Pen	10.63	2.05	31	13	12.75	King's House Gardens	2.35	1.15	31	3	11.09
Mandeville	6.80	1.37	1	16	16.56	Melrose	1.85	0.43	31	10	...
Carlton, Mandeville	8.19	1.46	1	14	16.56	Halfway Tree	1.50	0.45	31	5	9.90
The Hill	8.72	1.90	4	9	...	Lunatic Asylum	4.10	1.55	23	10	7.93
Fairfield, Manchester	9.85	2.17	23	17	10.60	Glenmore Road	4.09	1.26	23	8	...
Mile Gully	6.43	2.45	17	10	...	Kingston P. W. Office	2.05	1.24	23	6	8.15
Ulster Spring	7.57	2.50	15	9	10.19	Plumb Point L. H.	2.00	1.50	23	5	7.67
Freeman's Hall	9.33	2.00	10	15	...	Clifton Pen	3.28	1.48	17	4	...
Albert Town	8.49	2.40	15	7	13.10	Quarantine Station	0.30	0.30	23	1	...
Lowe River	14.22	3.12	16	10	12.37	Spanish Town	3.27	2.16	31	6	9.59
Troy	12.03	1.60	5	18	16.50	Hog Hole, St. Catherine	5.00	3.25	31	6	10.09
Windsor Pen, Trel.	7.15	1.60	6	14	9.49	Hartlands	3.05	1.70	23	2	8.00
Medina	7.98	2.77	23	9	...	Belmont, Guanaboa Vale	3.54	1.00	29	13	...
Wallingford	...	...	...	...	...	Old Harbour	3.48	0.74	31	8	11.07
Balaclava Police Station	16.52	3.21	23	13	13.38	May Pen	4.24	1.67	31	7	11.57
Siloah	19.30	3.55	23	13	16.67	Happy Hut	5.10	1.50	23	...	...
Appleton Estate	22.30	4.00	23	19	14.04	Hillside	...	...	...	...	...
Maggotty	17.59	2.55	14	17	15.30	Moreland	...	...	...	...	...
Butlers	13.61	2.60	12	19	...	Money Musk	...	...	...	...	...
Dromilly Pen	12.08	2.09	5	15	...	Dunkley's, Vere	1.26	0.65	3	7	7.01
Spring Vale	8.74	2.15	21	14	10.42	Dry River	3.21	0.69	1	5	9.21
Garland	...	...	...	...	...	Denbigh	3.15	2.15	31	3	10.11
Mochó, Catadupa	...	...	...	...	...	Toll Gate	6.40	1.60	31	12	...
Springfield, St. Elizabeth	...	...	...	...	...	Woodleigh	3.30	0.70	2	7	...
Chesterfield, St. James	21.93	4.10	31	23	...	New Yarmouth	2.62	0.73	1	8	9.20
Catadupa Rly. Station	...	...	...	...	...	Exeter, Vere	4.20	1.50	19	7	...
Kempshot	8.90	2.36	15	19	9.60	Rhymesbury	...	...	...	...	...
Cambridge, St. James	15.14	2.13	14	24	...	Milk River	3.09	0.76	1	6	7.56
Ducketts	16.79	2.47	14	23	...	Clarendon Pk. Ry. St.	3.72	0.90	23	12	10.68
New Market, Police St.	9.83	1.80	15	21	...	Victoria Town	3.80	1.00	23	6	11.55
The Bog, New Market	8.14	1.07	19	26	...	Hog Hole, S. Manch.	5.49	1.60	1	10	...
Kew Park	11.57	2.83	31	19	11.68	Stone's Hope	5.64	1.08	25	9	13.35
Montpelier	10.89	2.05	19	19	...	Newport, Manchester	9.58	2.08	3	19	13.26
Knockalva	10.62	1.28	19	22	...	Great Valley, Man.	3.24	0.80	1	9	11.37
Ramble	13.75	1.50	20	13	...	Alligator Pond	1.91	1.00	1	3	8.77
Petersville	19.35	3.07	11	23	11.33	Southfield, St. Elizabeth	2.94	0.98	23	8	...
Darliston	18.44	2.15	20	24	15.71	Lititz	6.20	3.00	23	11	...
Bluefields	13.69	2.70	15	16	10.95	Torrington	6.23	1.91	23	9	11.26
Whithorn	9.45	1.62	23	24	11.93	Bethlehem, St. Eliz.	7.59	4.95	23	12	10.86
Water Works Pen	12.20	2.20	21	18	...	Santa Cruz	13.74	2.10	12	13	12.01
Great Valley, Han.	...	...	...	...	...	Pedro Plains Police St.	2.33	0.70	19	6	6.60
Prospect Park	...	...	...	...	...	Mountainside	8.97	3.00	23	10	...
Fontabelle, Westm.	3.75	1.50	21	15	...	Black River	7.10	1.93	11	11	8.74
Belleisle	...	...	...	...	...	Font Hill	11.50	4.25	29	13	9.95
Morgan's Bridge	8.49	1.85	14	14	12.94	Mount Edgecombe	9.51	2.62	21	20	10.05
King's Vale Police St.	10.18	1.60	21	15	10.25	Sweet River	6.93	1.15	15	19	10.06
						Windsor, Sav.-la-mar	5.11	1.48	21	8	8.40
						Orchard	4.52	1.28	1	15	...
						Sav.-la-mar	5.27	0.98	26	15	8.99
						Little London	1.97	0.54	19	8	...
						Retreat	3.19	1.00	31	12	10.96
						Negril Point L.H.	4.59	1.79	27	15	8.37
Mean	10.90	...	...	...	...	Mean	5.09	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	OCT.	
	1917.	Average.
	In.	In.
North-Eastern Division ...	6.65	13.22
Northern " ...	4.73	7.46
West-Central " ...	10.90	12.02
Southern " ...	5.09	10.28
The Island ...	6.84	10.74

SHOCKS OF EARTHQUAKE IN OCT., 1917.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
I	hr. min. 7 25 a.m.	II	Mt. Holstein; N.E. and S.W.
23	8 30 a.m.	I	.012. Rumbling sou d. Unity Valley.
	about midnt.	I	Unity Valley.

The rainfall over the Islaand was very irregular and below the average. The heaviest fall 29.73 inches was at Rose Hill and the smallest 0.30 at the Quarantine Station.

CORRIGENDA—W. R. 475, Sept. 1917, p. 3—Spitzbergen; for 28.55 read 21.55 and for 22nd read 23rd.

p. 4—Island Rainfall Southern Division for 15.05 read 14.05.

W. R. 466, Jan. 1917, p. 4—Island Rainfall for 3.58 read 3.08.

CHARLOTTE MAXWELL HALL,
Asst. Government Meteorologist.

Montego Bay P.O.

1,05-
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FEB 12 1918

No. 477.



JAMAICA

WEATHER REPORT

FOR THE MONTH OF

NOVEMBER, 1917.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar Pressure.		Temperatures.					Extreme Temperatures.					
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date	Min.	Date	Range	
		ft.	in.	in.	°	°	°	°	°		°		°	
Morant Pt. Light House	..	8	29.927	29.889	73.3	80.1	82.2	73.8	8.4	85.3	1*	67.0	4*	18.5
Kingston	..	24	29.908	29.874	72.1	82.5	85.0	71.2	13.8	89.7	29	68.0	3	21.7
Negril Point Light House	..	33	29.931	29.877	74.8	81.2	83.6	72.4	11.2	87.2	1	68.4	4	18.8
Castleton Gardens	..	496	..	..	70.5	78.7	81.8	69.6	12.2	89	1*	64	3*	25
Hope Gardens†	..	668	..	..	71.2	79.6	84.6	68.6	16.0	86	3*	64	30	22
Bavinton, Stony Hill**	..	1,349	29.926	29.861	69.1	74.6	77.5	67.1	10.4	81.0	18	63.0	4	18.0
Stony Hill Indus. School	..	1,400	..	..	69.7	75.2	77.2	67.1	10.1	84	1	65	4*	19
Hill Gardens	..	4,900	25.234	25.185	63.3	64.5	66.6	56.2	10.4	69	30	54	27	15

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		°		°					m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House	.. 8	71.1	79	71.0	69	8.86	..	Var.	19	N	15	4.9	0.7	1.6	4.3	1.9	1.7
Kingston	.. 24	69.1	90	71.0	68	0.66	129	N	4.5	SE	6.9	2.4	1.6	2.2	5.8	1.5	1.4
Negril Point Light House†	.. 33	68.7	82	70.2	70	3.12	277	NNE	10.4	N	13.2	4.0	0.8	3.5	4.3	1.2	3.3
Castleton Gardens	.. 496	68.7	93	74.8	87	23.92	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	.. 668	66.1	84	70.6	66	2.92	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	.. 1,349	65.7	89	69.1	83	5.31	..	N	3.6	N	4.9	4.2	1.7	1.2	6.0	2.2	0.5
Stony Hill Indus. School	.. 1,400	66.3	89	68.0	79	4.53	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	.. 4,900	60.5	93	62.1	90	19.38	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
‡ Negril Point Light House. Wind 11 p.m. NE 10.1
** Bavinton, Stony Hill. Mean Min. temp. on grass 64.4
Earth temp. 1 ft. below surface 74.6
" 4ft. " " 75.4

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

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						Nov., 1917.				
						Greatest fall in 24 hours.				
						Days on which 0.01 or more fell.				
						Average				

Nov., 1917.						Nov., 1917.					
WEST-CENTRAL DIVISION.	Greatest fall in 24 hours.					SOUTHERN DIVISION.	Greatest fall in 24 hours.				
	Total Fall.	Amount.	Date.	Days on which 0.01 or more fell.	Average.		Total fall.	Amount.	Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.		In.			In.	
Whitney	6.10	2.51	5	7	...	Morant Point L. H.	8.86	2.93	15	15	6.90
Mocho, Clarendon	1.60	1.50	20	2	5.10	Elliott Hill	13.56	3.48	9	23	...
Spaldings	4.27	0.90	6	21	...	Pleasant Hill	13.54	2.80	8	14	...
Tan-y-bryn	2.83	0.89	6	19	...	East Prospect	10.04	3.25	8	14	11.94
Brokenhurst	...	...	...	...	...	Morant Bay	6.23	1.58	16	15	6.44
Christiana	3.48	1.35	6	10	6.82	Easington	3.01	0.80	1	13	5.35
Chudleigh	4.20	1.06	6	23	9.07	Bull Bay	0.82	0.32	13	4	3.71
Shooter's Hill	4.28	0.87	20	15	9.12	Bellevue	4.56	1.55	8	22	...
Spitzbergen	2.65	0.74	6	10	...	Gordon Town	...	...	...	...	...
Kendal, Manchester	5.53	1.10	6	11	6.29	Hope Gardens	2.92	...	...	...	6.35
Marshall's Pen	4.72	1.00	3	11	6.16	King's House Gardens	1.75	0.47	8	5	3.31
Mandeville	6.07	1.32	1	18	5.99	Melrose	2.08	0.46	5	9	...
Carlton, Mandeville	8.06	2.29	6	13	5.99	Halfway Tree	1.52	0.45	8	6	3.66
The Hill	5.25	1.40	4	9	...	Lunatic Asylum	0.88	0.50	6	8	3.57
Fairfield, Manchester	7.56	2.92	19	14	6.46	Glenmore Road	1.04	0.32	6	11	...
Mile Gully	...	...	...	...	...	Kingston P. W. Office	0.66	0.29	6	9	3.00
Ulster Spring	10.85	1.25	19	18	6.49	Plumb Point L. H.	0.33	0.21	7	7	2.32
Freeman's Hall	10.50	2.50	6	15	...	Clifton Pen	1.20	0.50	5	3	...
Albert Town	6.62	1.35	27	11	9.66	Quarantine Station	0.51	0.31	5	2	...
Lowe River	10.46	1.16	27	17	8.51	Spanish Town	2.16	0.78	19	8	3.56
Troy	8.00	2.05	2	6	6.46	Hog Hole, St. Catherine	0.96	0.20	7	6	4.34
Windsor Pen, Trel.	5.03	1.50	16	12	6.03	Hartlands	2.85	1.00	16	6	5.65
Medina	4.88	1.27	6	10	...	Belmont, Guanaboa Vale	1.80	0.65	16	10	...
Wallingford	...	...	...	...	...	Old Harbour	...	...	...	...	...
Balaclava Police Station	4.66	1.78	2	16	5.91	May Pen	2.65	0.60	16	11	4.51
Siloah	4.80	1.50	5	7	8.45	Happy Hut	3.01	0.60	16	9	...
Appleton Estate	7.03	2.63	2	11	6.04	Hillside	...	...	...	...	...
Maggotty	5.32	1.87	2	6	6.80	Moreland	...	...	...	...	...
Butlers	4.95	1.70	2	8	...	Money Musk	...	...	...	...	...
Dromilly Pen	11.43	2.40	17	12	...	Dunkley's, Vere	4.88	1.20	12	11	3.92
Spring Vale	6.48	1.95	2	9	6.08	Dry River	6.91	1.92	6	10	7.48
Garland	...	...	...	...	...	Denbigh	3.05	0.60	16	11	4.79
Mocho, Catadupa	6.85	1.20	13	11	...	Toll Gate	3.52	1.10	2	8	...
Springfield, St. Elizabeth	...	...	...	...	...	Woodleigh	3.00	0.90	16	6	...
Chesterfield, St. James	6.13	4.70	6	7	...	New Yarmouth	6.15	1.90	2	9	2.66
Catadupa Rly. Station	...	...	...	...	...	Exeter, Vere	...	...	...	...	...
Kempshot	9.35	3.29	7	17	6.18	Rhymesbury	...	...	...	...	...
Cambridge, St. James	4.72	2.03	2	9	...	Milk River	6.19	2.25	2	5	4.26
Ducketts	3.86	1.00	6	6	...	Clarendon Pk. Ry. St.	2.59	0.80	6	8	7.45
New Market, Police St.	2.43	0.80	1	7	...	Victoria Town	3.37	1.00	2	6	4.53
The Bog, New Market	2.43	0.70	1	8	...	Hog Hole, S. Manch.	4.30	1.50	7	6	...
Kew Park	...	...	...	...	...	Stone's Hope	6.17	1.59	2	11	5.01
Montpelier	5.85	2.30	7	9	...	Newport, Manchester	4.96	1.56	6	16	6.29
Knockalva	10.15	3.84	2	11	...	Great Valley, Man.	6.97	2.65	6	11	4.24
Ramble	10.00	5.50	2	7	...	Alligator Pond	4.66	1.23	2	7	2.97
Petersville	6.00	3.31	1	11	6.49	Southfield, St. Elizabeth	5.40	1.33	5	10	...
Darliston	5.82	1.72	29	11	7.48	Lititz	6.05	1.92	19	9	...
Bluefields	4.01	0.82	15	8	7.56	Torrington	...	...	...	...	...
Whithorn	5.09	1.45	7	9	6.92	Bethlehem, St. Eliz.	5.06	1.75	6	13	7.32
Water Works Pen	5.70	1.55	8	8	...	Santa Cruz	8.39	1.85	2	14	5.89
Great Valley, Han.	14.08	4.00	15	8	5.81	Pedro Plains Police St.	3.07	0.94	6	8	4.01
Prospect Park	...	...	...	...	...	Mountainside	5.72	2.15	6	6	...
Fontabelle, Westm.	2.43	0.89	7	5	3.03	Black River	4.07	1.62	19	6	4.53
Belleisle	...	...	...	...	...	Font Hill	2.35	0.90	1	7	5.32
Morgan's Bridge	2.65	1.33	7	11	5.30	Mount Edgecombe	3.97	2.20	1	8	5.00
King's Vale Police St.	9.48	2.30	15	11	5.46	Sweet River	4.31	1.70	2	5	3.80
						Windsor, Sav.-la-mar	5.29	2.25	2	5	3.64
						Orchard	6.14	2.38	1	6	...
						Sav.-la-mar	5.20	3.20	2	5	3.10
						Little London	4.87	2.66	2	5	...
						Retreat	5.51	2.37	1	4	4.79
						Negril Point L.H.	3.12	1.97	2	8	3.21
Mean	6.20	...	...	...	...	Mean	4.10	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL. (Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	NOV.	
	1917.	Average.
	In.	In.
North-Eastern Division	19.28	13.54
Northern	8.02	5.91
West-Central	6.20	5.74
Southern	4.10	4.56
The Island	9.40	7.44

SHOCKS OF EARTHQUAKE IN NOV., 1917.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
	hr. min.		
4	12 7 p.m.	I	Race Course, Vere.
5	10 21 p.m.	I	Kingston; rumbling sound for 3 secs.
		I	Mt. Holstein. N and S 003 Sound
9	6 35 a.m.	III	Mt. Holstein. NW & SE 071. Two heavy shocks.
		II	Kingston. NW & SE 017. Six secs. duration.
		II	Unity Valley and Race Course Vere.

The rainfall over the Island was above the average in all the divisions but the southern. Exceedingly heavy rains fell over the N.E. as much as 49.40 inches falling at Moore Town and 42.47 inches at Fellowship. At the Plumb Point Light House only 0.33 inch fell.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

THE LOSS OF THE SCHOONER "ESTRELLA."

The schooner was on her way from Kingston to Santiago de Cuba with 25 passengers on board and a crew of 5 including the master; she was of 53 tons register, she was thoroughly sea-worthy, and had been given a certificate by the Marine Board a few days before she sailed.

Early in the morning of Friday November 16th the schooner was about 16 miles south-east of Port Morant; there was a light breeze blowing and the vessel was making about 3 knots an hour: when suddenly at 3.30 a.m. the vessel was felt to quiver or tremble from stem to stern, she heeled over on her beam ends, and the hatches being more or less open, the vessel sank rapidly.

The women passengers were all below deck, the men were mostly on deck, but the sinking of the vessel was so quick that nothing could be done to save them; and all were lost with the exception of the mate and two of the crew, who managed to hold on to one of the ship's boats cast adrift when the ship went down. They made Port Morant at 10.30 a.m. and reported the loss of the vessel.

The owner of the vessel, his agent, and a reporter from the *Gleaner*, left Kingston for Morant Bay the same day, where they saw the three survivors and heard their story, which was published in *The Gleaner* of November 19th, and was to the effect that the weather was calm at the time, that the vessel suddenly shook, listed over, and was suddenly "engulfed," and in a few minutes all was over. The mate attributed the occurrence to a "sea-quake," whatever that may be, for he could think of no other reason.

On November 30th the Marine Board held an inquiry into the loss of the "Estrella," when the witnesses adhered to their former statements as to the fine weather conditions; and consequently in the opinion of the Board their evidence gave no satisfactory explanation of the disaster.

Neither was there any satisfactory explanation of the loss of the schooner "Albert" off St. John's Point, July 12th, 1916; a short account was published in the Weather Report for that month, No. 458, and it will be as well to reproduce it here:—

On the 12th July at 3 p.m. the schooner "Albert" was lost in fine weather off St. John's Point, near Savanna-la-Mar; the Master, S. W. Bodden, at the helm of the 87 ton vessel suddenly heard a roar, the vessel was up-heaved, spun round, and sank in a hollow. Bodden wrote me in reply to some questions, that he considered it to be a water spout, which he did not see; but water spouts are supposed to raise the water of the sea, and not to produce a whirl-pool to suck a vessel down. All the men but one were saved in the ship's boat which broke loose when the schooner went down.

But in *The Gleaner* of the 19th November to which reference was made above, the reporter after referring to the schooner "Albert" proceeded to say, "and we have been told by experienced Caymanian mariners that there have been several other such occurrences where vessels have been lost in that manner."

Of these occurrences the only one of which I have heard referred to the sinking of a schooner which belonged to the late Dr. Hirst, Commissioner of the Cayman Islands. The schooner was returning to Grand Cayman from the Bahamas, I believe, when suddenly one fine night the schooner was thrown on her beam ends, swung round in a circle, and then engulfed in a hollow in the sea. The master and others were saved in the ship's boat which broke loose when the ship went down.

In the case of the "Albert" I suggested a whirlpool, and this suggestion also applies to the "Estrella"; there would be a ridge of swiftly revolving water which might produce the roar heard in the one case and the quivering felt in the other; and then would come the terribly steep incline of the water towards the whirlpool, which would throw the vessel on her beam ends. I am not aware that such whirlpools have been called in question before; they might possibly be caused by conflicting currents. I would be glad of any information which can throw light on the whole subject.

M. H.



JAMAICA

WEATHER REPORT

FOR THE MONTH OF
DECEMBER, 1917.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
		in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House	8	29.960	29.916	75.9	79.0	80.7	71.9	8.8	83.5	1*	64.5	28	19.0
Kingston	24	29.936	29.893	68.8	81.3	83.7	68.0	15.7	87.2	11	63.1	27	24.1
Negril Point Light House	33	29.857	29.899	71.2	81.1	83.4	68.1	15.3	85.8	12	62.5	27	23.3
Castleton Gardens	496	..	..	66.7	78.8	81.7	65.7	16.0	87	9*	60	29	27
Hope Gardens†	668	29.925	..	67.0	82.4	84.1	64.4	19.7	88	4	59	31	29
Bavinton, Stony Hill**	1,349	29.958	29.887	65.4	75.0	77.5	64.1	13.4	82.0	9	60.0	27	22.0
Stony Hill Indus. School	1,400	..	..	66.1	75.2	77.3	64.7	12.6	83	2*	62	27*	21.0
Hill Gardens	4,900	25.038	25.200	60.2	61.9	64.7	53.1	11.6	69	3	47	29	22

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		°	°	°	°			in	miles	°	°	°	°	L.	M.	U.	L.
Morant Pt. Light House	8	67.0	74	68.7	71	7.33	..	NNE	14	NNE	14	3.1	0.9	0.7	3.3	1.4	0.1
Kingston	24	65.2	88	68.1	63	1.04	153	NNE	5.9	SSE	8.4	1.3	1.8	0.1	2.6	1.1	0.3
Negril Point Light House†	33	66.3	85	67.9	65	0.90	241	NE	8.9	N	12.2	0.6	2.4	0.6	0.4	3.9	0.6
Castleton Gardens	496	65.2	93	71.5	79	4.79	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	63.4	87	72.5	71	3.08	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	62.3	90	64.5	70	3.77	..	N	3.5	N	5.6	2.5	1.6	0.8	2.9	3.2	0.3
Stony Hill Indus. School	1,400	62.3	88	64.8	70	3.82	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	4,900	56.5	89	58.7	89	4.62	..	..	..	..	..	..	..	..	..	..	..

* and on other days.

† Negril Point Light House.

** Bavinton, Stony Hill.

Wind 11 p.m.
Mean Min. temp. on grass
Earth temp. 1 ft. below surface
" 4ft. " " "

† Hope Gardens. Bar. read at 9 a.m. and 3 p.m.

NE

9.7
60.5
73.0
74.4

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.		DEC., 1917.				
		Total Fall.	Greatest fall in 24 hours.		Dayson which 0.01 or more fell.	Average.
			Amount	Date.		
	In.	In.			In.	
Manchioneal	... 14.92	2.25	5	21	8.02	
Spring Valley	... 15.93	2.43	6	21	11.11	
Bath	... 7.23	2.25	21	13	8.80	
Priestman's River	... 19.96	4.15	20	22	...	
Moore Town	... 29.42	6.00	5	18	25.39	
Port Antonio	... 13.80	2.07	4	18	13.78	
Fellowship	... 21.47	4.50	5	22	19.92	
Johnson River Bridge	... 5.18	1.26	18	15	5.53	
Shrewsbury	... 26.47	9.48	3	23	19.98	
Cedar Valley, St. Thos.	... 5.00	1.15	22	16	5.52	
Hope Bay	... 14.74	3.56	4	20	...	
Moy Hall, St. Thos.	... ..	...	...	...	...
Brooklodge	... 4.02	0.85	21	16	..	
Lennox	... ..	...	...	...	...
Farm Hill	... 6.21	1.95	24	5	10.94	
Hill Gardens	... 4.62	0.95	19	18	10.73	
Buff Bay	... 12.60	4.75	23	19	11.81	
Vinery	... 17.35	10.20	4	11	15.02	
Windsor Castle, Port.	... ..	...	...	...	...
Greenvale, Portland	... 14.17	3.00	3	18	28.36	
Mt. Holstein	... 8.53	1.39	6	27	17.04	
Irish Town	... 1.55	1.55	19	1	4.28	
Rose Hill	... 2.77	0.84	19	6	...	
Hardware Gap	... 1.50	...	...	...	6.86
Stony Hill Ind. School	... 3.82	1.35	7	13	4.16	
Castleton Gardens	... 4.79	0.70	31	18	12.92	
Lawrence Tavern	... 1.60	0.70	8	3	4.48	
Cedar Valley, Red Hills	... 0.71	0.26	7	4	...	
Zion Hill	... 3.78	1.00	7	8	...	
Agnalta Vale	... 10.78	4.32	3	20	9.65	
Water Valley	... 11.65	4.60	4	20	6.83	
Platfield	... ..	...	...	...	...
Richmond, St. Mary	... 6.99	1.86	3	20	9.50	
Highgate	... 3.54	1.00	23	8	...	
Hampstead, St. Mary	... 9.99	2.97	27	16	13.35	
Guy's Hill	... 3.65	1.00	1	9	...	
Lucky Hill	... 5.71	1.27	3	16	...	
Rio Hoe	... 3.38	1.20	27	11	9.10	
Unity Valley	... 4.67	1.37	1	11	7.66	
Moneague	... 3.18	1.16	27	13	7.60	
Claremont	... 2.14	0.48	28	9	8.49	
Albion, St. Ann	... 4.46	0.90	7	17	8.19	
Averham Park	... 3.40	1.58	23	12	10.41	
Mean	... 9.23	...	...	...	...

NORTHERN DIVISION.	DEC., 1917.				
	Total fall.	Amount.	Date.	Greatest fall in 24 hours.	Days on which 0.01 or more fell.
	In	In.			
Port Maria	7.32	2.03	19	20	8.06
Ocho Rios	4.25	1.30	19	11	5.74
Bogue, Ocho Rios	4.47	5.00	4	12	...
Rockfield	7.59	2.13	22	17	...
Drax Hall	5.32	1.56	4	11	8.47
Liberty Hill	4.89	1.20	28	17	9.05
St. Ann's Bay	5.28	1.50	4	15	7.07
Seville	5.50	1.20	3	14	7.77
Richmond Estate	6.33	1.91	4	17	...
Llandovery	5.05	1.53	5	10	8.55
Runaway Bay	4.99	1.38	1	8	...
Brown's Town	3.22	1.19	30	7	8.85
Alexandria	1.63	0.69	22	5	...
Watt Town, St. Ann	2.58	1.34	9	7	...
Home Castle	2.00	0.95	4	10	7.63
Richmond Pen	2.85	1.60	31	8	4.86
Mahogany Hall	2.28	0.80	28	10	...
Barnstaple	...	...	...	...	...
Bryan Castle	1.80	0.40	20	8	6.54
Braco	1.65	0.50	1	6	5.80
Arcadia	3.85	1.00	6	11	6.78
Lancaster	1.10	0.43	1	5	6.54
Harmony Hall	1.79	0.40	2	10	6.13
Vale Royal	2.24	0.50	28	7	7.88
Colchis Pen	1.46	0.35	10	9	4.47
Swanswick	...	...	...	...	...
Georgia	...	...	...	...	...
Long Pond	2.80	0.85	10	8	...
Duncans	...	...	...	...	...
Hyde Hall	2.15	0.70	1	6	...
Steelfield	2.44	0.95	1	6	...
Etingdon	3.20	1.40	1	6	...
Lottery	2.50	0.70	1	8	5.54
Falmouth	4.81	1.16	28	13	5.17
Florence Hall	3.25	0.89	24	8	4.47
Good Hope	2.86	2.20	30	3	...
Unity	...	...	...	...	...
Kent	...	...	...	...	...
Canaan	1.84	0.40	5	9	...
Content	4.65	1.20	6	13	...
Bellfield	...	...	...	...	...
Guildsbro	4.60	1.58	6	20	4.40
Glasgow	4.30	1.20	6	5	...
Moor Park	...	...	...	...	...
Rose Hall	...	...	...	...	...
Running Gut	1.84	0.40	5	9	...
Cinnamon Hill	4.65	1.20	6	13	...
Success	...	...	...	...	...
Spring Estate	8.02	2.16	19	10	5.57
Montego Bay	7.03	1.72	9	16	4.75
Catherine Hall	7.85	1.97	9	11	5.70
Friendship	5.06	1.02	1	11	...
Retirement	4.23	0.74	1	16	...
King Gate	6.06	2.73	9	10	3.74
Blue Hole	...	...	...	...	...
Haughton Court	4.05	1.10	19	7	3.67
Lucea	3.14	1.36	19	13	3.95
Green Island	4.11	0.92	19	9	..
CENTRAL SUB-DIVISION.					
Rio Magno	3.46	1.40	28	4	...
Headworks, Rio Cobre	5.26	2.96	22	6	2.05
Linstead	2.49	1.10	6	7	3.70
Berkshire Hall	1.13	0.45	28	9	4.28
Point Hill	1.73	0.65	22	5	5.92
Marlie Hill	2.52	1.16	22	5	...
Worthy Park	2.85	1.38	22	5	2.68
Croft Hill	2.95	0.86	1	8	2.88
Chapelton	4.90	2.35	20	11	2.47
Danks Works	5.63	2.30	20	9	2.57
Savoy House	5.89	2.40	22	12	2.81
Crooked River	...	...	...	...	..
Trout Hall	...	...	...	...	..
Frankfield	4.84	1.63	18	7	..
Mean	4.02	...	...	...	...

DEC., 1917.						DEC., 1917.					
WEST-CENTRAL DIVISION.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	SOUTHERN DIVISION.	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In..	In.			In.		In.	In.			In.
Whitney	1.25	1.25	...	1	3.99	Morant Point L. H.	7.33	1.39	9	18	6.41
Mochó, Clarendon	1.60	0.90	22	5	2.80	Elliott Hill	8.42	1.48	22	24	...
Spaldings	2.55	0.70	20	10	...	Pleasant Hill	7.24	1.68	6	12	...
Tan-y-bryn	2.72	0.74	18	10	...	East Prospect	7.10	1.85	9	11	4.87
Brokenhurst	2.67	0.50	18	10	3.80	Morant Bay	6.20	1.72	5	10	4.52
Christiana	4.32	1.63	1	10	3.68	Easington	3.44	1.40	5	14	3.31
Chudleigh	3.91	2.20	1	11	3.18	Bull Bay	1.47	0.92	4	3	1.75
Shooter's Hill	4.65	1.60	21	13	3.09	Bellevue	4.35	1.35	22	15	...
Spitzbergen	2.21	0.85	18	6	...	Gordon Town	2.03	1.25	19	2	3.37
Kendal, Manchester	5.82	2.12	18	6	2.92	Hope Gardens	3.08	...	...	...	2.83
Marshalls Pen	6.71	1.14	21	11	3.65	King's House Gardens	2.30	1.30	19	2	1.90
Mandeville	4.31	0.90	18	11	3.62	Melrose	2.08	1.46	19	6	...
Carlton, Mandeville	3.68	0.77	18	11	3.62	Halfway Tree	2.15	0.94	19	9	2.12
The Hill	5.02	1.77	23	10	...	Lunatic Asylum	1.16	0.42	19	9	2.03
Fairfield, Manchester	8.38	1.70	18	18	2.94	Glenmore Road	1.50	0.79	19	10	...
Mill Gully	...	...	...	...	...	Kingston P. W. Office	1.04	0.34	19	8	1.78
Ulster Spring	2.58	0.85	6	6	4.26	Plumb Point L. H.	0.43	0.21	6	4	1.60
Freeman's Hall	...	...	...	...	...	Clifton Pen	1.71	0.52	19	5	...
Albert Town	2.57	0.72	28	7	4.59	Quarantine Station	4.16	1.58	4	8	...
Lowe River	4.77	1.08	20	9	3.61	Spanish Town	3.38	1.86	22	9	2.08
Troy	4.55	1.80	22	6	3.58	Hog Hole, St. Catherine	0.96	0.74	19	6	2.83
Windsor Pen, Trel.	2.96	0.95	6	8	4.51	Hartlands	3.64	1.15	18	12	2.19
Medina	6.15	2.30	21	8	...	Belmont, Guanaboa Vale	1.15	0.65	21	3	...
Wallingford	...	...	...	...	...	Old Harbour	1.55	0.86	20	5	2.71
Balaclava Police Station	5.22	1.30	14	11	2.42	May Pen	2.55	0.75	22	8	2.40
Siloah	4.80	1.95	22	10	3.59	Happy Hut	1.78	0.74	22	3	...
Appleton Estate	...	...	...	...	...	Hillside	...	...	...	...	...
Maggotty	5.19	1.76	21	8	2.98	Moreland	6.00	1.64	4	12	...
Butlers	5.60	1.10	16	9	...	Money Musk	...	...	...	...	...
Dromilly Pen	2.88	0.78	7	5	...	Dunkley's, Vere	3.55	0.95	22	14	1.91
Spring Vale	3.96	2.00	7	7	6.27	Dry River	2.42	0.59	20	8	2.16
Garland	...	...	...	...	...	Denbigh	...	...	...	...	...
Mochó, Catadupa	...	...	...	...	...	Toll Gate	4.85	1.40	20	6	...
Springfield, St. Elizabeth	5.54	3.50	21	5	...	Woodleigh	0.45	0.30	22	2	...
Chesterfield, St. James	4.20	1.50	16	7	...	New Yarmouth	2.18	0.60	22	8	1.97
Catadupa Rly. Station	4.41	2.97	6	8	...	Exeter, Vere	...	...	...	...	...
Kempshot	3.00	0.84	6	14	5.40	Rhymesbury	...	...	...	...	...
Cambridge, St. James	4.94	1.78	8	8	...	Milk River	2.14	0.50	19	8	2.48
Ducketts	4.71	2.05	6	6	...	Clarendon Pk. Ry. St.	0.43	0.10	21	8	2.48
New Market, Police St.	4.81	1.85	21	9	...	Victoria Town	2.72	1.07	16	4	3.03
The Bog, New Market	3.80	2.50	21	8	...	Hog Hole, S. Manch.	2.76	0.80	19	7	...
Kew Park	1.81	0.64	9	6	...	Stone's Hope	3.36	0.68	19	9	2.85
Montpelier	...	...	...	...	...	Newport, Manchester	3.07	0.76	17	16	4.11
Knockalva	2.13	0.46	22	12	...	Great Valley, Man.	4.90	1.56	23	12	2.77
Ramble	4.15	1.00	10	6	...	Alligator Pond	3.55	1.30	23	7	2.70
Petersville	3.76	1.15	17	12	2.72	Southfield, St. Elizabeth	3.54	0.94	23	8	...
Darliston	4.82	1.96	21	9	3.47	Lititz	2.20	0.55	19	14	...
Bluefields	1.46	0.82	25	3	2.74	Torrington	2.43	0.70	19	9	2.72
Whithorn	1.79	0.50	21	9	2.94	Bethlehem, St. Eliz.	2.31	0.73	21	13	2.44
Water Works Pen	2.30	0.85	21	6	...	Santa Cruz	5.10	1.05	23	8	2.77
Great Valley, Han.	8.52	2.50	2	13	...	Pedro Plains Police St.	1.98	0.60	19	5	1.28
Prospect Park	...	...	...	...	...	Mountainside	1.19	0.50	2	5	...
Fontabelle, Westm.	2.21	1.50	9	7	3.19	Black River	2.42	0.48	23	10	2.27
Belleisle	...	...	...	...	...	Font Hill	4.65	1.90	21	6	2.08
Morgan's Bridge	2.75	1.20	29	3	3.28	Mount Edgecombe	1.83	0.74	19	8	2.44
King's Vale Police St.	...	...	...	...	...	Sweet River	0.85	0.56	19	4	2.46
						Windsor, Sav.-la-mar	0.52	0.29	11	3	2.48
						Orchard	0.65	0.35	19	4	...
						Sav.-la-mar	0.85	0.60	19	3	2.36
						Little London	0.73	0.57	20	4	...
						Retreat	0.65	0.40	19	2	...
						Negril Point L.H.	0.90	0.37	1	8	2.12
Mean	3.84	...	...	...	...	Mean	2.68	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	DEC.	
	1917.	Average.
	In.	In.
North-Eastern Division	9.23	10.28
Northern "	4.02	5.45
West-Central "	3.84	3.60
Southern "	2.68	2.61
The Island	4.94	5.48

SHOCKS OF EARTHQUAKE IN DEC., 1917.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
23	hr. min. 3 50 p.m.	I	Mt. Holstein, NW & SE, also NE & S. W. '005. May have been two shocks though only felt as slight tremor lasting a few seconds.

THE ISLAND RAINFALL, 1917.

Month.	N.E.	N.	W.C.	S.	The Island.
	In.	In.	In.	In.	In.
Jan.	6.84	2.60	1.72	1.16	3.08
Feb.	4.56	2.77	4.15	1.60	3.27
Mar.	2.93	1.83	3.53	1.72	2.50
Apr.	8.96	6.78	9.34	3.21	7.07
May	8.84	4.62	11.13	4.81	7.35
June	11.22	5.74	11.07	5.24	8.32
July	7.25	3.86	6.68	3.04	5.21
Aug.	6.55	5.40	12.20	5.91	7.52
Sept.	18.34	10.91	18.42	14.05	15.43
Oct.	6.65	4.73	10.90	5.09	6.84
Nov.	19.28	8.02	6.20	4.10	9.40
Dec.	9.23	4.02	3.84	2.68	4.94
Totals	110.65	61.28	99.18	52.62	80.93

The heaviest fall was 29.42 inches at Moore Town and the smallest was 0.43 at the Plumb Point Light House.
MAGNETIC VARIATION. The mean variation of the compass at Kempshot during 1917 was 2° 35' E.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

METEOROLOGICAL RESULTS for the year 1917.

KINGSTON JAMAICA. Mean results for the year 1917. Elevation, 24 feet.

Month.	Bar Pressure.		Temperature.					Extremes for the Month.			Dewpoint and humidity				Rain-fall.	Miles of Wind per diem.	
	7 a.m.	3 p.m.	Mean.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Min.	Range	7 a.m.		3 p.m.			
												°	°	°			°
January	30.023	29.974	74.1	67.0	81.1	84.5	65.9	18.6	89.9	63.3	26.6	62.7	86	67.5	63	0.26	151.5
February	30.053	30.010	74.4	67.2	81.4	84.9	66.2	18.7	87.8	63.5	24.3	62.3	84	67.0	62	0.16	173.4
March	30.018	29.969	75.4	68.5	82.3	86.2	66.6	19.6	89.0	63.3	25.7	63.0	83	67.1	60	0.07	211.3
April	29.930	29.888	77.5	73.1	82.6	86.9	69.5	17.4	90.3	66.4	24.4	66.5	80	68.6	63	0.97	160.1
May	29.936	29.890	79.9	77.2	83.5	88.3	72.5	15.8	92.7	69.6	23.1	69.4	77	71.7	68	1.99	203.7
June	29.954	29.925	79.8	75.9	83.9	88.4	72.8	15.6	94.2	70.6	23.6	69.7	81	71.5	66	3.24	201.0
July	29.965	29.935	80.6	76.3	85.1	89.8	73.3	16.5	93.4	71.4	22.0	69.3	79	71.4	64	0.60	215.5
August	29.969	29.927	80.3	75.2	85.1	89.7	73.3	16.4	91.8	70.5	21.3	69.9	84	72.4	66	1.15	184.1
September	29.900	29.870	79.2	75.1	83.6	87.4	72.6	14.8	91.2	70.3	20.9	71.1	87	73.3	71	8.00	202.7
October	29.911	29.859	78.5	73.6	82.9	87.8	71.7	16.1	90.3	68.3	22.0	69.6	87	73.2	73	2.05	164.5
November	29.908	29.874	77.2	72.2	82.5	85.0	71.2	13.8	89.7	68.0	21.7	68.9	89	71.0	68	0.66	129.2
December	29.936	29.893	75.1	68.8	81.8	83.7	68.0	15.7	87.2	63.1	24.1	65.2	88	68.1	63	1.04	153.0
Total Means	29.959	29.918	77.7	72.5	83.0	86.9	70.3	16.6	90.7	67.4	23.3	67.3	84	70.2	66	20.25	179.2

Month.	Wind from and miles per hour.				Clouds in tenths.				Weather Conditions				
	7 a.m.		3 p.m.		Lower.		Middle.			Upper.			
		mils.		mils.			7 a.m.	3 p.m.		7 a.m.	3 p.m.		
January	N by E	5.0	SE by S	11.2	N	4.6	1.2	2.0	0.4	1.8	2.1	0.3	Fine. Rainfall about one-fifth the average. "Norther" on 7th and 8th. Distant Thunderstorm on 25th.
February	N	5.6	SE	14.8	N by E	4.7	1.5	0.8	0.1	2.1	2.8	0.1	Fair. Rainfall below the average. "Norther" on 3rd, 5th, 6th, 7th, and 8th. Humidity 5 per cent. below the mean.
March	N by E	4.6	SE	19.2	N by E	3.9	1.8	1.2	0.1	2.4	2.4	0.2	Fine. Rainfall considerably deficient. Humidity 2 per cent. below the mean. Rain squalls on 3rd and 24th. Thunderstorm on 31st.
April	N	4.4	SE	11.0	NNE	4.8	0.9	0.8	0.4	3.5	2.5	0.8	Rainfall about the average. Thunderstorms and distant lightning on 12 days. "Norther" on 23rd and 24th. N.W. squall on 14th and N.E. squall on 29th. Humidity the average.
May	NNE	5.3	SE	14.3	NE by E	5.8	0.9	0.9	0.6	2.5	2.8	0.5	Rainfall below the average. S.E. wind continued throughout nights of 6th and 7th. Distant lightning and Thunderstorms on 6 days. Norther on 16th and 17th. Humidity about the average.
June	N by E	4.0	SE	15.0	NE by N	4.3	0.6	2.2	4.4	3.7	1.8	2.0	Rainfall about three-fourths the average. Distant lightning and thunderstorms frequently. Squalls on 2nd, 3rd and 29th. Humidity 1 per cent. below the mean.
July	E by N	5.9	SE	16.5	N by E	4.3	1.1	1.5	2.0	2.5	2.0	2.6	Rainfall about one-third the average. Distant lightning and Thunderstorm on 13 days. Squalls on 5 days. Sea breeze throughout night of 13th. Humidity 1 per cent. below the mean.
August	NE by N	4.1	SE	14.6	N	3.9	0.4	1.1	3.3	2.8	1.7	3.6	Rainfall about one-fourth the average. Distant lightning and Thunderstorms frequently. S.E. squalls on 2nd and 26th. Humidity the average. Sea-breeze till late on 18th and 30th.
Sept.	E by N	6.9	SE	13.4	E by N	5.1	1.4	1.4	2.4	4.4	1.5	2.2	Fine on 9 days. Thunderstorms on 12 days. Squalls on 6 days. Hurricane to North 4.45 a.m., on 23rd. Rainfall about twice the average. Humidity 3 per cent. above the mean.
October	NE by N	3.9	SE	12.7	NNE	4.5	0.0	0.8	3.1	3.2	1.4	3.3	Fine on 6 days. Rainfall one-fourth the average. Thunderstorms on 7 days. Humidity 2 per cent. above the mean.
Nov.	N by E	4.5	SE by S	6.9	N by E	4.9	2.4	1.6	2.2	5.8	1.5	1.4	Fine on 3 days. Rainfall about one-fifth the average. "Norther" on 6 days. Distant lightning on 8 days. Humidity 1 per cent. above the mean.
December	NNE	5.9	SSE	8.4	N by E	5.7	1.3	1.8	0.1	2.6	1.1	0.3	Fine on 18 days. Rainfall about two-fifths below the average. "Norther" on 5 days. Humidity 1 per cent. above the mean.
Means	NNE	5.0	SE	13.2	NNE	4.7	1.2	1.3	1.6	3.1	2.0	1.4	Rainfall about two fifths below the average. Total No. of Rainy days 92. Mean Temperature about 1 degree below the average. Max. Range of Temperature 24.4° on 25th April. Min. Range Temp. 4.0° on 30th June.

Table of Correlations of weather elements and sunshine recorded at Bavinton, Stony Hill, 1917.
Elevation. 1,349 feet.

Elevation: 1,015 feet.																
1917.		Barometer Pressure.		Air Temperature.						Humidity.			Rainfall.			
Months.	7 a.m.	3 p.m.	Means.	Average Maximum.	Average Minimum.	Range.	Absolute Maximum.	Absolute Minimum.	Extreme Range.	Mean.	7 a.m.	3 p.m.	Inches.	Per cent.	No. of Days.	
	in.	in.	°	°	°	°	°	°	°	°	°	°	°	°		
January	70.3	79.1	62.9	16.2	82.0	59.5	22.5	75	87	62	1.28	52	11	
February	69.1	78.2	62.0	16.2	81.5	59.0	22.5	79	89	69	5.29	211	14	
March	71.0	80.1	63.3	16.8	84.5	61.0	23.5	76	88	63	1.98	74	6	
April	..	29.948	29.885	70.9	79.7	63.6	16.1	84.0	59.0	25.0	79	86	72	7.55	153	18
May	..	29.946	29.887	73.6	81.4	66.8	14.6	85.5	64.0	21.5	81	88	74	8.90	88	15
June	..	29.972	29.925	74.0	82.1	67.3	14.8	88.0	65.0	23.0	83	90	76	7.97	108	19
July	..	29.980	29.931	75.4	84.3	67.9	16.4	89.5	65.0	24.5	79	86	71	3.33	60	17
August	..	29.978	29.937	74.5	83.1	67.8	15.3	87.0	65.5	21.5	84	89	79	10.42	147	19
September	..	29.916	29.874	74.1	81.8	67.8	14.0	87.5	64.5	23.0	84	88	80	20.76	225	22
October	..	29.931	29.870	73.3	81.6	67.3	14.3	84.0	65.0	19.0	83	87	78	23.36	150	24
November	..	29.926	29.861	71.6	77.5	67.1	10.4	81.0	63.0	18.0	86	89	83	5.31	84	24
December	..	29.959	29.887	70.0	77.5	64.1	13.4	82.0	60.0	22.0	80	90	70	3.77	87	14
Totals	99.90	120	203	
Means	..	29.951	29.895	72.3	80.5	65.7	14.8	84.7	62.5	22.2	81	88	73	..	..	..

Elevation: 1,015 feet.																
1917.		Wind Direction and velocity.				Cloud in tenths of the sky.	Sunshine, hours and tenths.	Solar Maximum.	Radiation.				Earth Temperature.		Thunder, No. of days.	Wet Mist. No. of days.
Month.	Wind from.	Miles per hour.	Wind from.	Miles per hour.	Grass Minimum temp.				1 ft. below surface.	4 ft. below surface.						
								At the surface.	Two inches above the surface.	Six inches above the surface.	Twelve inches above the surface.					
								°	°	°	°	°	°			
January	..	N by E	1.2	NNE	4.2	5.8	5.9	142.8	56.1	57.3	58.4	58.9	71.6	73.1	2	12
February	..	N by E	2.4	N by W	4.6	6.0	5.8	145.9	55.5	56.8	57.5	58.1	71.3	72.6	..	11
March	..	N by E	1.5	sw by s	4.6	5.9	5.7	146.6	56.6	58.0	58.8	59.2	73.2	72.8	1	13
April	..	NE	1.8	s by W	6.1	6.1	6.2	147.4	58.8	59.9	60.5	60.9	74.7	73.9	11	14
May	..	N by E	2.4	s by W	6.0	4.9	7.2	148.7	62.4	63.6	63.8	64.3	77.2	75.6	13	16
June	..	N	1.3	SSE	4.1	6.6	6.0	148.5	63.4	64.2	64.5	65.0	78.5	76.9	20	20
July	..	N by E	1.4	NW by N	3.9	5.8	6.6	149.5	64.0	64.4	64.8	65.4	79.1	77.9	15	17
August	..	NE by N	1.2	N	2.4	6.9	5.6	148.4	64.3	64.7	65.0	65.4	78.9	78.0	23	22
September	..	SSE	3.1	S	5.3	6.9	5.6	145.6	64.3	64.9	65.2	65.9	77.7	77.5	14	15
October	..	NE by N	1.5	SSE	2.5	6.4	5.5	147.1	62.4	63.5	64.0	64.8	76.6	76.6	19	27
November	..	N by E	3.6	N by W	4.9	7.9	3.6	135.5	63.4	64.4	64.8	65.1	74.6	75.4	9	10
December	..	N	3.5	N by W	5.6	5.7	6.1	146.1	59.3	60.5	61.2	61.9	73.0	74.4	5	15
Totals	132	192
Means	..	NNE	2.1	WSW	4.5	6.2	5.8	146.0	60.9	61.9	62.4	62.9	75.5	75.4	..	..

The Barometer pressures are reduced to the standards of Kew, 32° F., gravity at Lat. 45°, and mean sea level but not corrected for diurnal variation.

The Air thermometers are exposed in a Stevenson Screen, their readings have been corrected for instrumental errors.

The mean daily temperature in the fourth column has been reduced from the 7 a.m., 3 p.m., max. and min. readings according to the rule in "Meteorology of Jamaica" by Maxwell Hall, M.A. p. 14.

The rainfall in column fifteen is expressed as percentage of recorded averages for Stony Hill for sixteen years See W.R. No. 366.

The wind velocity is measured by a Robinson's anemometer—3 inch cups; arms 4 inches from axis to centre of cups.

The clouds averages are means of 7 a.m. and 3 p.m. observations.

The sunshine is registered by a Jordan photographic recorder.

The Solar maximum temperature is measured by a black bulb thermometer in vacuo—The highest solar Maximum was 163° F on August 2nd.

The lowest minimum temperatures on the grass were 51° F. at the surface and 52.5° F., 2 inches above the surface on January 10th.

The earth thermometers are suspended in iron tubes sunk into the earth under short grass.

"Wet Mist" in the last column is wet mist observed at 7 a.m. in the Wag Water valley.

Particulars of Sunshine recorded at Bavinton, Stony Hill. Averages in hours and tenths of an hour.

Month 1917.	6 to 7.	7 to 8.	8 to 9.	9 to 10.	10 to 11.	11 to noon.	12 to 1.	1 to 2.	2 to 3.	3 to 4.	4 to 5.	5 to 6.	Totals.	Per Ct. of possible Sunshine.
January ..	0.1	0.8	0.8	0.8	0.6	0.5	0.4	0.5	0.5	0.5	0.4	0.0	5.9	53
February ..	0.3	0.8	0.8	0.8	0.6	0.5	0.4	0.3	0.3	0.4	0.5	0.1	5.8	51
March ..	0.4	0.8	0.7	0.7	0.5	0.4	0.3	0.4	0.4	0.6	0.4	0.1	5.7	48
April ..	0.6	0.8	0.9	0.8	0.6	0.4	0.4	0.4	0.3	0.4	0.4	0.2	6.2	50
May ..	0.6	0.8	0.9	0.8	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	7.2	55
June ..	0.7	0.8	0.8	0.8	0.7	0.4	0.4	0.3	0.3	0.3	0.3	0.2	6.0	46
July ..	0.5	0.8	0.9	0.8	0.7	0.5	0.4	0.5	0.4	0.4	0.4	0.3	6.6	51
August ..	0.5	0.8	0.9	0.8	0.6	0.4	0.3	0.2	0.3	0.4	0.3	0.1	5.6	44
September ..	0.4	0.8	0.8	0.7	0.6	0.4	0.4	0.4	0.4	0.3	0.3	0.1	5.6	47
October ..	0.5	0.9	0.9	0.9	0.7	0.4	0.4	0.3	0.2	0.2	0.1	0.0	5.5	49
November ..	0.1	0.5	0.5	0.5	0.5	0.4	0.2	0.3	0.3	0.2	0.1	0.0	3.6	33
December ..	0.1	0.6	0.8	0.8	0.7	0.6	0.6	0.5	0.6	0.5	0.3	0.0	6.1	56
Means ..	0.40	0.77	0.81	0.77	0.62	0.45	0.39	0.38	0.38	0.39	0.33	0.13	5.82	49

NOTE.—The early morning sunshine is cut off by the mountains to the East.

7,05-
JA

No. 479.



JAMAICA

WEATHER REPORT

FOR THE MONTH OF
JANUARY, 1918.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
		in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House	8	29.988	29.954	76.0	79.4	80.8	72.0	8.8	82.5	16	57.0	3	25.5
Kingston	24	29.964	29.921	68.1	82.5	84.5	76.1	17.4	91.5	26	56.9	2	34.6
Negril Point Light House	33	29.977	29.929	70.5	81.5	84.4	68.1	16.3	88.9	19	57.1	5	31.8
Castleton Gardens	496	..	..	63.2	83.2	83.7	63.2	20.5	89.0	16	53	5	36.0
Hope Gardens†	668	29.969	29.899	66.0	84.8	85.2	64.1	21.1	91.0	29	59	3	32.0
Bavinton, Stony Hill**	1,349	29.984	29.903	64.2	77.3	79.3	62.4	16.9	83.0	20*	54.5	2	28.5
Stony Hill Indus. School	1,400	..	..	64.9	77.6	79.4	63.1	16.3	86.0	26	54.0	2	32.0
Kempshot	1,773	29.975	29.926	65.6	73.0	76.1	64.4	11.7	80.4	17	57.4	2	23.0
Hill Gardens	4,900	25.270	25.211	59.7	62.0	65.5	51.8	13.7	71.0	29	46.0	5	25.0

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		°	°	°	°				m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	8	66.8	73	68.3	69	0.64	..	ENE	17.0	NE	16.0	3.3	0.6	0.5	3.0	0.6	0.1
Kingston ..	24	62.8	83	66.6	59	0.58	204	NNE	6.2	SE	14.9	1.6	0.7	1.2	1.4	1.6	0.5
Negril Point Light House† ..	33	64.5	81	67.4	63	0.21	50	ENE	5.9	SSE	14.2	0.7	1.3	2.0	0.4	3.2	0.6
Castleton Gardens ..	496	61.3	93	63.3	60	0.73	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	60.9	84	63.4	56	0.17	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill ..	1,349	60.0	86	64.8	66	0.18	..	N	2.6	WNW	6.0	2.6	0.9	1.0	2.6	2.6	0.2
Stony Hill Indus. School ..	1,400	60.0	84	63.5	62	0.13	..	..	..	..	..	..	..	..	..	..	..
Kempshot ..	1,773	63.2	84	70.8	84	0.83	175	E	5.9	E	4.8	3.3	1.0	0.2	1.7	1.0	0.4
Hill Gardens ..	4,900	55.5	86	57.9	86	0.83	..	..	..	..	..	..	..	..	..	..	..

* and on other days.

† Negril Point Light House.

** Bavinton, Stony Hill.

† Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
Wind 11 p.m. ENE 10.5
Mean Min. temp. on grass 57.5
Earth temp. 1 ft. below surface 71.3
" 4ft. " " 72.5

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending his report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

JAN., 1918.						JAN., 1918.				
NORTH-EASTERN DIVISION.						Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
							Amount.	Date.		
						In.	In.	.		In.
Manchioneal	...	1.87	0.48	7	9	5.94				
Spring Valley	...	2.26	0.50	18	12	8.41				
Bath	...	0.76	0.20	22	7	6.26				
Priestman's River	...	1.68	0.59	7	9	...				
Moore Town	...	3.62	0.55	27	12	18.55				
Port Antonio	...	2.28	0.74	10	14	9.10				
Fellowship	...	2.33	0.60	19	16	14.16				
Johnson River Bridge	...	0.70	0.35	7	8	3.59				
Shrewsbury	...	2.17	0.50	25	9	20.13				
Cedar Valley, St. Thos.	...	0.40	0.40	7	1	4.46				
Hope Bay	...	1.34	0.34	19	9	...				
Moy Hall, St. Thos.	...	...	...	...	...	...
Brooklodge	...	0.30	0.23	6	3	...				
Lennox	...	...	...	...	...	...
Farm Hill	...	0.00	0.00	...	...	6.96				
Hill Gardens	...	0.86	0.50	7	3	7.09				
Buff Bay	...	1.31	0.38	27	12	10.22				
Vinery	...	...	...	...	...	...
Windsor Castle, Port.	...	...	...	...	...	...
Greenvale, Portland	...	2.07	1.06	25	5	21.07				
Mt. Holstein	...	0.94	0.36	7	6	14.03				
Irish Town	...	0.00	...	...	...	2.51				
Rose Hill	...	0.37	0.37	7	1	...				
Hardware Gap	...	0.40	...	...	...	4.95				
Stony Hill Ind. School	...	0.13	0.10	7	3	3.30				
Castleton Gardens	...	0.73	0.40	31	4	8.87				
Lawrence Tavern	...	0.77	0.49	7	2	1.95				
Cedar Valley, Red Hills	...	0.59	0.43	7	3	...				
Zion Hill	...	1.37	1.05	7	2	...				
Agualta Vale	...	1.06	0.30	7	9	7.20				
Water Valley	...	3.68	0.95	8	11	9.14				
Platfield	...	...	...	...	...	...
Richmond, St. Mary	...	1.27	0.59	7	7	6.18				
Highgate	...	1.34	0.67	7	3	...				
Hampstead, St. Mary	...	1.85	0.58	7	8	10.30				
Guy's Hill	...	1.27	0.60	9	3	...				
Lucky Hill	...	1.17	0.87	7	5	...				
Rio Hoe	...	1.16	0.77	7	2	5.47				
Unity Valley	...	1.09	0.91	7	4	4.69				
Moneague	...	1.14	1.00	7	3	4.18				
Claremont	...	0.68	0.48	7	2	6.12				
Albion, St. Ann	...	0.63	0.40	7	4	5.15				
Averham Park	...	0.76	0.29	7	3	6.88				
Mean	...	1.27	...	...	...	...
						NORTHERN DIVISION.				
						Total fall.	Greatest fall in 24 hours.	Amount.	Date.	Days on which 0.01 or more fell.
						In.	In.	.		In.
Port Maria	...	1.68	0.54	27	6	6.72				
Ocho Rios	...	0.45	0.20	28	3	5.42				
Bogue, Ocho Rios	...	0.96	0.50	28	5	...				
Rockfield	...	1.14	0.51	8	6	...				
Drax Hall	...	1.20	0.40	28	4	4.84				
Liberty Hill	...	0.84	0.44	27	2	7.23				
St. Ann's Bay	...	1.03	0.40	26	3	5.01				
Seville	...	0.80	0.40	26	3	5.61				
Richmond Estate	...	...	...	...	...	...
Llandovery	...	0.63	0.22	6	3	6.62				
Runaway Bay	...	0.70	0.30	7	3	...				
Brown's Town	...	0.93	0.50	7	3	5.41				
Alexandria	...	0.72	0.72	7	1	...				
Watt Town, St. Ann	...	0.92	0.50	7	3	...				
Home Castle	...	0.50	0.25	7	3	5.39				
Richmond Pen	...	1.10	0.45	3	3	3.48				
Mahogany Hall	...	0.47	0.29	7	2	4.76				
Barnstaple	...	...	...	...	...	...
Bryan Castle	...	0.60	0.25	26	3	4.66				
Braco	...	0.35	0.15	26	4	4.17				
Arcadia	...	0.75	0.30	26	4	4.38				
Lancaster	...	0.45	0.25	7	4	4.59				
Harmony Hall	...	0.41	0.27	7	4	3.97				
Vale Royal	...	0.35	0.13	4	3	4.94				
Colchis Pen	...	0.08	0.08	3	1	3.29				
Swanswick	...	...	...	...	...	...
Georgia	...	0.62	0.30	27	3	3.96				
Long Pond	...	...	...	...	...	...
Duncans	...	...	...	...	...	...
Hyde Hall	...	...	...	...	...	...
Steelfield	...	...	...	...	...	...
Etingdon	...	...	...	...	...	...
Lottery	...	0.45	0.25	7	3	3.78				
Falmouth	...	0.43	0.30	3	3	3.60				
Florence Hall	...	...	...	...	...	...
Good Hope	...	0.45	0.25	3	3	...				
Unity	...	...	...	...	...	...
Kent	...	...	...	...	...	...
Canaan	...	0.23	0.15	3	2	3.08				
Content	...	...	...	...	...	...
Guilbro	...	0.61	0.51	3	4	...				
Glasgow	...	0.50	0.50	3	1	...				
Moor Park	...	...	...	...	...	...
Spring Estate	...	0.37	0.37	3	1	4.87				
Montego Bay	...	0.27	0.20	3	2	2.92				
Catherine Hall	...	0.37	0.29	3	2	3.71				
Friendship	...	0.89	0.45	3	2	...				
Retirement	...	0.66	0.38	3	2	...				
King Gate	...	0.50	0.50	3	1	3.94				
Blue Hole	...	0.57	0.47	4	2	...				
Haughton Court	...	0.45	0.45	3	1	2.34				
Lucea	...	0.51	0.29	3	3	3.07				
Green Island	...	0.22	0.20	2	2	...				
						CENTRAL SUB-DIVISION.				
Rio Magno	...	0.60	0.60	7	1	...				
Headworks, Rio Cobre	...	1.52	1.40	7	3	1.84				
Linstead	...	1.42	1.36	7	2	...				
Berkshire Hall	...	1.19	1.16	7	3	2.96				
Point Hill	...	1.40	1.30	7	2	...				
Ballas Gate	...	2.81	1.21	15	6	...				
Worthy Park	...	...	...	...	...	...
Croft Hill	...	0.82	0.50	7	2	1.85				
Chapelton	...	1.25	1.06	7	3	2.24				
Danks Works	...	1.26	0.76	7	3	1.84				
Savoy House	...	0.99	0.65	7	4	2.29				
Crooked River	...	0.53	0.30	7	2	...				
Trout Hall	...	1.58	0.83	18	3	...				
Frankfield	...	1.52	0.76	8	2	...				
Mean	...	0.70	...	...	...	...

		JAN., 1918.							JAN., 1918.				
WEST-CENTRAL DIVISION.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	SOUTHERN DIVISION.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
			Amount.	Date.						Amount.	Date.		
		In.	In.			In.			In.	In.			In.
Whitney	...	...	...	...	...	...	Morant Point L. H.	...	0.64	0.28	6	6	4.30
Mocho, Clarendon	...	1.20	1.20	7	1	2.30	Elliott Hill	...	0.71	0.21	7	11	...
Spaldings	...	1.10	0.89	7	4	...	Pleasant Hill	...	0.34	0.18	21	3	...
Tan-y-bryn	...	0.97	0.64	7	7	...	East Prospect	...	0.91	0.40	6	7	4.08
Brokenhurst	...	...	...	...	...	...	Morant Bay	...	0.47	0.18	21	4	2.70
Christiana	...	0.74	0.57	7	3	2.35	Easington	...	0.64	0.35	7	3	1.64
Chudleigh	...	0.91	0.67	7	4	2.42	Bull Bay	...	0.58	0.48	7	2	0.87
Shooter's Hill	...	0.75	0.53	7	5	1.96	Bellevue	...	0.64	0.29	6	4	...
Spitzbergen	...	...	...	...	...	...	Gordon Town	...	0.00	...	...	...	2.08
Kendal, Manchester	...	1.01	0.77	7	2	2.39	Hope Gardens	...	...	...	...	...	...
Marshall's Pen	...	1.22	0.68	7	5	2.87	King's House Gardens	...	0.00	...	...	...	...
Mandeville	...	1.11	0.49	7	9	3.04	Melrose	...	0.26	0.26	8	1	...
Carlton, Mandeville	...	1.35	0.70	7	6	3.04	Halfway Tree	...	0.30	0.30	7	1	1.12
The Hill	...	1.48	1.00	7	2	...	Lunatic Asylum	...	0.18	0.18	7	1	0.72
Fairfield, Manchester	...	0.85	0.62	7	7	2.61	Glenmore Road	...	0.26	0.22	7	4	...
Mile Gully	...	...	...	...	...	...	Kingston P. W. Office	...	0.58	0.55	7	3	1.02
Ulster Spring	...	0.57	0.32	7	2	3.06	Plumb Point L. H.	...	0.05	0.05	7	1	1.80
Freeman's Hall	...	0.00	...	...	...	...	Clifton Pen	...	0.67	0.52	7	2	...
Albert Town	...	0.74	0.74	7	1	3.20	Quarantine Station	...	2.05	1.95	7	2	...
Lowe River	...	0.00	...	...	...	3.08	Spanish Town	...	2.04	1.64	7	3	...
Troy	...	0.45	0.45	6	1	2.25	Hog Hole, St. Catherine	...	1.36	1.16	7	2	1.71
Windsor Pen, Trel.	...	0.35	0.20	3	2	3.13	Hartlands	...	0.77	0.70	7	2	1.78
Medina	...	0.48	0.48	7	1	...	Belmont, Guanaboa Vale	...	...	...	...	...	...
Balaclava Police Station	...	1.34	0.50	18	6	1.71	Old Harbour	...	0.70	0.50	7	3	...
Siloah	...	1.80	1.20	18	5	3.08	May Pen	...	0.86	0.40	7	5	1.26
Appleton Estate	...	1.64	0.98	18	3	2.59	Happy Hut	...	0.80	0.50	7	2	...
Maggotty	...	1.55	0.93	18	4	2.72	Dunkley's, Vere	...	0.95	0.78	7	3	1.33
Butlers	...	2.28	1.05	18	5	...	Dry River "	...	0.93	0.75	7	3	1.57
Dromilly Pen	...	1.60	0.60	3	1	...	Denbigh	...	0.00	...	...	...	1.59
Spring Vale	...	0.42	0.42	3	1	...	Toll Gate	...	0.82	0.70	7	2	...
Garland	...	...	...	...	...	...	Woodleigh	...	0.00	...	...	...	...
Mocho, Catadupa	...	...	...	...	...	...	New Yarmouth	...	1.07	0.95	7	2	1.20
Springfield, St. Elizabeth	...	0.85	0.55	18	2	...	Exeter, Vere	...	0.85	0.60	7	4	...
Chesterfield, St. James	...	0.21	0.21	4	1	...	Rhymesbury	...	...	...	...	...	...
Catadupa Rly. Station	...	...	...	...	...	...	Milk River	...	0.81	0.44	7	2	1.50
Kempshot	...	0.83	0.35	7	4	3.98	Clarendon Pk. Ry. St.	...	0.31	0.26	7	4	2.64
Cambridge, St. James	...	0.22	0.15	3	2	...	Retrieve	...	1.57	0.80	7	8	...
Ducketts	...	0.00	...	...	...	...	Hog Hole, S. Manch.	...	1.07	0.55	7	3	...
New Market, Police St.	...	0.59	0.25	3	4	...	Stone's Hope	...	1.09	0.79	7	3	2.68
The Bog, New Market	...	1.25	0.75	18	4	...	Newport, Manchester	...	1.34	0.73	7	10	2.66
Kew Park	...	0.46	0.31	3	2	...	Great Valley, Man.	...	1.44	0.56	7	8	2.49
Montpelier	...	...	...	...	...	...	Alligator Pond	...	0.15	0.10	7	2	1.41
Burnt Ground	...	0.47	0.35	4	2	...	Southfield, St. Elizabeth	...	0.64	0.37	7	5	...
Knockalva	...	0.50	0.30	18	3	...	Lititz	...	1.27	1.00	7	4	...
Ramble	...	...	...	...	...	...	Torrington	...	1.24	1.09	7	2	3.31
Petersville	...	0.73	0.33	22	6	2.25	Bethlehem, St. Eliz.	...	0.95	0.76	7	4	2.52
Darliston	...	0.70	0.33	18	3	2.93	Santa Cruz	...	0.31	0.25	7	2	2.83
Bluefields	...	0.52	0.20	3	3	3.20	Pedro Plains Police St.	...	0.31	0.20	7	2	2.04
Whithorn	...	0.49	0.26	19	6	1.97	Mountainside	...	0.66	0.43	7	2	...
Water Works Pen	...	1.15	0.47	3	5	...	Black River	...	0.86	0.50	23	4	1.63
Great Valley, Han.	...	0.80	0.80	3	1	...	Font Hill	...	1.00	0.50	7	3	1.88
Fontabelle, Westm.	...	0.46	0.44	3	2	...	Mount Edgecombe	...	0.90	0.56	22	6	2.04
Grange Hill	...	0.95	0.85	8	6	1.82	Sweet River	...	0.44	0.13	18	4	1.82
King's Vale Police St.	...	0.37	0.23	3	2	3.26	Windsor, Sav.-la-mar	...	0.03	0.03	3	1	1.83
							Orchard	...	0.44	0.14	4	3	...
							Sav.-la-mar	...	0.87	0.75	20	4	1.62
							Little London	...	0.13	0.13	3	1	...
							Retreat	...	0.66	0.48	3	2	1.57
							Negril Point L.H.	...	0.21	0.08	3	6	1.34
Mean	...	0.90	...	...	...	...	Mean	...	0.66	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	JAN.	
	1918.	Average.
	In.	In.
North-Eastern Division	1.27	7.15
Northern	0.70	3.77
West-Central	0.90	2.85
Southern	0.66	1.81
The Island	0.88	3.90

SHOCKS OF EARTHQUAKE IN JAN., 1918.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
	hr. min.		
	No earthquakes this month.		

The Island rainfall was about one-fourth the average. The heaviest falls were 3.68 and 3.62 inches at Water Valley and Moore Town; both in the N.E. division. Irish Town, in that division, and two or three stations in both the West-central and Southern divisions had no rain.

The very low temperature of 56.9° was recorded in Kingston on the morning of Jan. 2nd; the lowest recorded was 56.7° on December 4th, 1887.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

KINGSTON TEMPERATURES.

FOR THE YEARS 1908 TO 1917 INCLUSIVE.

These temperatures were all taken at the residence of Mr. J. F. Brennan, 148½ East Street, 108 feet above sea-level; and a full account of the instruments and the exposure will be found in W. R. No. 389.

The former table of temperatures based on observations made between 1881 and 1898*, published in *The Meteorology of Jamaica* and the annual volumes of *The Handbook of Jamaica*, were not all taken at the same place, and there was some doubt as to the exposure of the screen in the Parade Gardens so that the following new temperatures are to be preferred.

Month.	Mean.	7 a.m.	3 p.m.	Max.	Min.	Highest Max.	Lowest Min.
	°	°	°	°	°	°	°
January	75.6	69.2	81.5	85.9	67.6	91.0	59.7
February	75.4	69.0	81.6	85.9	67.3	91.4	61.1
March	76.7	71.2	82.7	86.5	68.3	91.8	62.1
April	78.1	74.6	82.8	87.0	70.2	93.5	64.5
May	79.8	77.5	83.7	87.8	72.3	93.8	65.8
June	81.0	78.2	84.8	89.1	73.6	95.2	68.5
July	81.2	77.6	85.7	90.2	73.4	95.3	68.1
August	81.0	77.4	85.0	90.0	73.7	95.0	69.9
September	80.6	77.0	84.4	89.7	73.5	95.2	69.4
October	79.5	75.4	83.0	88.6	72.9	94.9	68.3
November	77.8	73.1	82.1	86.6	71.4	92.7	62.4
December	76.5	70.6	82.1	86.3	69.0	91.9	61.8
Means for 10 years	78.6	74.2	83.3	87.8	71.1	93.5	65.1

* This table requires but little explanation; the 7 a.m. 3 p.m. max and min. are the means for each month during the 10 years; the second column gives similarly the mean daily temperatures, or the mean temperature for the 24 hours, deduced from the Jamaica formula:—Add together the 7 a.m. 3 p.m. max. and min. temperatures, subtract 2° from their sum, and divide the remainder by 4. The two last columns give the highest and lowest temperatures recorded in any January, February, March, &c., during the 10 years. The two columns are therefore different to the two last columns in Table V in *The Meteorology of Jamaica*, p. 40; but in all respects the tables closely agree; the mean daily temperature from the 18 years observations was 78.8°; the mean daily temperature from the last 10 years observations was 78.6°; and the difference is apparently due to the difference of elevation.

* The Weather Service was disestablished between April, 1899 and July, 1907.

Between 1881 and 1898 inclusive the absolute highest and lowest temperatures were 96.7° and 56.7° ; between 1908 and 1917 inclusive they were 95.3° and 59.7° , the former being recorded on the 28th July, 1914 and the latter on the 27th January, 1910.

JAMAICA TEMPERATURES AND THE SOLAR CYCLE.

In W. R. No. 275 the Kingston temperatures between 1881 and 1898 inclusive were very carefully considered and a break was found in the 7 a.m. readings:—"From 1881 to 1889 the mean is 75.5° ; from 1890 to 1898 the mean is 73.7° . During the first nine years the screen was as well exposed as possible; during the last nine years the screen was moved to the Parade Gardens, which had been recently planted with ornamental shrubs of all kinds. Of late years* these shrubs have grown into trees, and gave anxiety as to the exposure of the screen; but it appears that the exposure was bad at first, and has not become worse with the growth of the trees. But it is to be noticed that the daily Max. temperatures, which occur shortly after noon, are in no way affected by the ornamental shrubs or trees; the sun is then vertical or nearly so, and of course the screen is exposed to its full blaze. When we look down the Max. column we are surprised to find that the two lowest results occur in 1884 and 1893 near the times of the sun-spot Max., and that the highest result occurs in 1889 at the time of the sun-spot Min. These effects are reproduced in the mean temperature column; but without doubt we ought to look to the mean of the daily Max. throughout the year to show any variation in the intensity of the solar radiation."

Now the mean 7 a.m. reading between 1908 and 1917 is $74^{\circ}.2$, or about midway between the two former results; and in consequence of these systematic differences in the 7 a.m. readings, and the small resulting differences in the mean for the 24 hours deduced by means of the formula given above, it appears that we should follow the conclusion arrived at some years ago, and simply use the daily Max. to show any small variation there may be in Solar radiation."

Year.		Mean Max.		Solar cycle.
1881	..	87.2	86.7°	.. Max.
2	..	86.4		
3	..	86.8		
4	..	86.3		
5	..	86.9		
6		(89.0)		
7	..	88.3	88.4	.. Min.
8	..	88.9		
9	..	89.5		
1890	..	87.9		
1	..	87.5	86.9	.. Max.
2	..	86.7		
3	..	86.5		
4	..	86.8		
5	..	87.5		
6	..	87.8		
7	..	87.8	87.5	.. Mean.
1898	..	86.9		
1908	..	88.2	87.5	.. Mean.
1909	..	87.2		
1910	..	87.0		
1	..	89.1	88.5	.. Min.
2	..	88.2		
3	..	87.7		
4	..	89.1		
5	..	87.7		
6	..	86.7	86.8	.. Max.
1917	..	86.9		

These Max. temperatures have not been "smoothed" in any way but they have been grouped together about the times of Solar Max and Min., and the results from the last 10 years fully confirm the results from the former 18 years. The whole work may be considered as follows:—

Solar cycle.	Max temps.
	°
Max	{ 86.7
	{ 86.9
	{ 86.8
Mean	{ 87.5
	{ 87.5
Min.	{ 88.4
	{ 88.5

These results could not have been obtained unless the temperature and climate had been wonderfully uniform, and unless great care had been taken with regard to exposure and instrumental corrections.

And finally the variation of Solar radiation as shown by the Max. thermometer is only $1^{\circ}.6$, and therefore so small as to hardly affect meteorological conditions.

M. H.
8.2.18

* Written in 1902.

METEOROLOGICAL RESULTS for the year 1917.

NEGRIL Pt. LIGHT HOUSE. Mean Meteorological results for the year 1917. Elevation, 33 feet.

Month.	Barometer.		Temperature.					Extremes for the Month.			Dewpoint and humidity.			Rain-fall.	Wind Miles per day.	
	7 a.m.	3 p.m.	Mean.	7 a.m.	3 p.m.	Max.	Min.	Range.	7 a.m.	3 p.m.	Range	3 p.m.				
												°	°			
	in.	in.	°	°	°	°	°	°	°	°	°	°	°	in.		
January	30.031	29.977	74.8	68.9	81.6	84.5	66.2	18.3	87.1	60.8	26.3	63.9	84	64	1.09	203
February	30.066	30.024	74.2	68.5	81.1	83.4	65.9	17.5	87.5	61.0	26.5	68.2	81	63	0.57	228
March	30.028	29.981	74.7	70.0	80.5	84.1	66.0	18.1	87.1	62.9	24.2	64.7	83	69	2.51	197
April	29.932	29.892	77.2	74.5	82.2	85.0	69.2	15.8	88.4	64.5	23.9	68.4	81	66	0.35	214
May	29.938	29.890	79.6	78.5	83.1	86.3	72.6	13.7	90.2	68.6	21.6	70.0	76	70	3.75	260
June	29.955	29.927	79.7	77.9	83.8	86.4	72.5	13.9	90.5	69.6	20.9	71.3	80	74	7.55	183
July	29.975	29.939	80.3	78.2	83.8	88.3	72.9	15.4	91.5	69.1	22.4	70.1	76	71	5.93	196
August	29.967	29.937	79.0	77.6	81.6	86.8	72.1	14.7	88.8	70.0	18.8	71.0	80	76	12.07	163
September	29.896	29.860	79.5	77.3	83.5	86.2	73.1	13.1	89.5	70.4	19.1	71.6	82	71	7.33	272
October	29.916	29.861	79.0	76.1	83.7	86.6	71.6	15.0	89.7	69.6	20.1	70.6	82	74	4.59	177
November	29.931	29.877	77.5	74.8	81.2	83.6	72.4	11.2	87.2	68.4	18.8	68.7	82	70	3.12	277
December	29.957	29.899	75.5	71.2	81.1	83.4	68.1	15.3	85.8	62.5	23.3	66.3	85	65	0.90	241
Means Total	29.966	29.922	77.6	74.5	82.3	85.4	70.2	15.2	88.6	66.5	22.1	68.7	81	69	49.76	218

Month.	Wind from and miles per hour.			Clouds in tenths of the Sky.						Weather Conditions.			
	7 a.m.		11 p.m.	Lower.		Middle.		Upper.					
	dir.	miles.	dir.	miles.	7 a.m.		3 p.m.		7 a.m.		3 p.m.		
					dir.	miles.	dir.	miles.					
January	NE	8.0	WSW	10.4	NE	8.1	1.5	1.3	0.4	5.0	1.1	0.3	Fine 9, Fair 1, Overcast 7, Cloudy 7, L on 24 and 25, Th. on 25th. Rainfall below average.
February	NE	8.0	Var.	13.0	ENE	8.1	1.5	0.7	1.9	4.8	0.0	0.0	Fine 9, Cloudy 10, Overcast 6, and Rain on 4 days, L. on 26th, T. on 27th, Northern 2nd and 3rd. Brisk N. winds 4th-6th. Rainfall below average. Earthquake on 20th N. W. and S. E. direction.
March	ENE	8.0	SW	11.3	ENE	7.0	1.3	4.5	0.4	4.0	0.3	0.0	Fine 1, Cloudy 11, Overcast 8 and Rain on 11 days, T and L. on 30 and 31st. Rainfall normal.
April	E	6.0	Var.	12.0	ENE	8.2	1.3	1.0	1.7	4.7	2.0	1.8	Fine 5, Cloudy 14, Overcast 6 and Rain on 5 days, T or L on a few days. Rainfall below average.
May	ENE	8.3	SSE	13.9	E	9.0	0.7	1.6	1.4	4.9	1.5	0.8	Fine 3, Fair 1, Cloudy 10, Overcast 5 and Rain on 12 days, L. on 21st 23rd and 25th, T. or L. on a few days, Northern 14th to 16th. Rainfall below average.
June	ENE	6.8	SE	10.2	E	6.4	1.3	2.7	0.7	5.3	6.2	0.9	Fine 1, Cloudy 7, Overcast 8, and Rain on 14 days. L. on 9 days, T or L on many days. Rainfall above average.
July	ENE	7.0	SE	10.9	ENE	6.7	0.4	3.5	0.7	5.4	4.0	0.4	Fine 1, Cloudy 7, Overcast 8, and Rain on 15 days, L. on 12 days, L. or T. on many days. Passing disturbance on 7th. Rainfall normal.
August	ENE	7.2	NNE	8.3	ENE	6.1	0.6	2.3	0.7	7.0	4.3	0.4	Overcast 5, Rain on 26 days, L. on almost every day. Rainfall nearly twice the average.
Sept.	E	9.3	SE	13.8	E	9.1	1.3	2.0	0.8	5.1	3.4	1.1	Fine 1, Cloudy 4, Overcast 6, Rain on 19 days, L. on 6 days, T or L. on many days, Storm on 23rd. Rainfall the average.
October	ENE	6.1	SE	9.8	ENE	7.5	0.5	0.0	0.0	7.0	4.6	1.5	Cloudy 12, Overcast 4, Rain on 15 days, L. on 6 days, T. or L. on a few days. Rainfall below average.
Nov.	NNE	10.4	N	13.2	NE	10.1	4.0	4.3	0.8	1.2	3.5	3.3	Fine 2, Cloudy 2, Overcast 18, Rain 8 days, L. on 1st and 15th T or L on a few days. Fresh N winds throughout the month, Northers on 8, 10 and 15 to 17, 24 to 29. Rainfall normal.
December	NE	8.9	N	12.2	NE	9.7	0.6	0.4	2.4	3.9	0.6	0.6	Fine 12, Cloudy 8, Overcast 3 and Rain on 8 days, T or L on 2 days. Rainfall below average. Northern on 1st 3rd and 29th to 31st.
Means	ENE	7.8	SSE	11.6	ENE	8.0	1.3	2.0	1.0	4.9	2.6	0.9	Rainfall for the year 49.76 is below the average (54.26) with 144 rainy days for the year.

4



JAMAICA

W E A T H E R R E P O R T

FOR THE MONTH OF

FEBRUARY, 1918.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky ; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar Pressure.		Temperatures					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date	Min	Date.	Range
		in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House	8	30.027	29.994	77.0	79.0	80.8	73.0	7.8	82.0	2*	70.0	4*	12.0
Kingston	24	30.004	29.958	68.3	82.3	85.0	67.6	17.4	93.8	28	64.6	21*	24.2
Negril Point Light House	33	30.017	29.964	70.3	80.7	84.6	67.3	17.3	88.7	15	63.2	23	25.5
Castleton Gardens	496	..	..	66.0	80.4	82.8	65.0	17.8	87	2	59	1*	28
Hope Gardens†	668	30.003	29.960	65.9	81.2	86.2	66.0	20.2	90	1*	64	1*	26
Bavinton, Stony Hill**	1,349	30.020	29.945	65.3	76.0	78.8	63.1	15.7	82.5	2	60.0	18	22.5
Stony Hill Indus. School	1,400	..	..	65.7	76.1	78.6	63.7	14.9	86	2	61	18*	25
Kempshot	1,773	30.004	29.964	65.9	72.6	76.2	65.5	10.7	78.8	27	62.7	9	16.1
Hill Gardens	4,900	25.304	25.262	60.2	61.8	65.2	53.0	12.2	63	1	51	6*	17

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		°	°	°	°			m.	m.	L.	M.	U.	L.	M.	U.		
Morant Pt. Light House	8	68.5	75	68.7	70	3.25	..	NE	17	NE	15	4.1	0.6	0.4	2.4	1.9	0.5
Kingston	24	63.6	85	67.3	61	0.52	175	N	5	SE	14	2.2	1.4	0.0	3.1	2.2	0.4
Negril Point Light House†	33	64.8	83	68.6	67	4.35	209	NE	9	Var.	12	1.1	1.2	0.8	2.1	4.1	0.2
Castleton Gardens	496	64.1	93	63.4	66	4.10	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	61.3	84	66.9	69	1.07	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	61.8	89	65.2	70	3.44	..	NNE	2	N	4	4.0	1.3	0.0	4.7	2.7	0.2
Stony Hill Indus. School	1,400	61.9	88	64.7	68	2.91	..	..	..	..	..	..	..	..	..	..	..
Kempshot	1,773	64.0	86	68.2	70	1.35	282	E	8	E	5	4.1	1.1	0.0	2.2	2.7	0.7
Hill Gardens	4,900	55.6	86	57.5	86	5.43	..	..	..	..	..	..	..	..	..	..	..

* and on other days.
 † Negril Point Light House.
 ** Bavinton, Stony Hill.

† Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
 Wind 11 p.m. NE by E
 Mean Min. temp. on grass 7.7
 Earth temp 1 ft. below surface 59.1
 " 4ft " " 72.7
 " " " " 73.2

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending his report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	FEB., 1918.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			In.
Manchioneal	5.86	1.71	4	10	6.10
Spring Valley	8.65	2.00	6	18	6.36
Bath	6.58	0.75	3	19	4.86
Priestman's River	5.72	0.63	6	18	
Moore Town	13.84	2.00	28	17	14.18
Port Antonio	5.92	1.02	3	13	6.19
Fellowship	10.36	1.36	19	24	11.70
Johnson River Bridge	4.50	1.43	8	17	2.24
Shrewsbury	13.61	1.65	5	23	10.90
Cedar Valley, St. Thos.	2.27	0.42	4	11	2.76
Hope Bay					
Moy Hall, St. Thos.					
Brooklodge	1.64	0.39	4	13	
Lennox					
Farm Hill	7.72	1.65	20	17	3.25
Hill Gardens	5.43	1.27	5	16	4.05
Buff Bay	6.24	1.40	10	17	7.74
Vinery					
Greenvale, Portland	13.30	3.80	5	18	10.12
Mt. Holstein	10.16	2.72	5	22	7.46
Irish Town	0.90	0.50	4	2	1.29
Rose Hill	5.12	1.40	20	7	
Hardware Gap	3.07				3.45
Stony Hill Ind. School	2.91	0.70	20	14	2.22
Castleton Gardens	8.10	2.60	28	16	4.95
Lawrence Tavern	3.48	1.35	5	6	2.36
Cedar Valley, Red Hills	2.37	0.65	11		
Zion Hill	1.98	0.50	9	13	
Agualta Vale	4.60	0.85	2	16	4.44
Water Valley	6.34	1.55	2	22	5.05
Platfield					
Richmond, St. Mary	3.14	1.15	2	18	5.31
Highgate	4.27	0.94	6	13	
Hampstead, St. Mary	8.58	1.58	6	24	7.14
Guy's Hill	5.30	2.50	12	7	
Lucky Hill	6.26	0.95	4	19	
Rio Hoe	5.28	1.15	5	15	4.05
Unity Valley	3.80	0.77	7	17	3.60
Moneague	4.73	1.18	5	13	4.08
Claremont	3.72	1.52	5	10	4.58
Albion, St. Ann	3.90	1.30	5	12	3.59
Averham Park	4.63	0.90	12	12	4.50

Mean ... 6.20 ...

NORTHERN DIVISION.	FEB., 1918.				
	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average
		Amount.	Date.		
	In.	In.			In.
Port Maria	3.96	1.02	16	17	5.95
Ocho Rios	2.35	0.75	6	8	3.85
Bogue, Ocho Rios	3.78	0.50	3	17	4.59
Rockfield	4.37	0.91	12	21	
Drax Hall	1.60	0.36	6	9	4.47
Liberty Hill	3.30	0.60	12	11	3.88
St. Ann's Bay	2.89	0.90	2	11	4.88
Seville	2.74	1.00	2	12	4.29
Richmond Estate					
Llandovery	3.43	1.22	16	7	4.57
Runaway Bay	2.07	0.57	10	7	
Brown's Town	2.74	0.92	5	9	4.74
Alexandria	7.54	0.91	5	3	
Watt Town, St. Ann	1.10	0.70	5	4	
Home Castle	2.30	0.45	6	14	3.16
Richmond Pen	1.95	1.40	5	4	2.18
Mahogany Hall	1.91	0.67	21	8	3.03
Barnstaple					
Bryan Castle	1.75	0.40	3	9	2.32
Braco	1.55	0.35	3	7	2.23
Arcadia	2.10	0.65	3	7	2.36
Lancaster	1.79	0.35	26	11	2.51
Harmony Hall	1.88	0.50	2	14	2.23
Vale Royal	1.67	0.70	2	9	2.72
Colchis Pen	1.81	0.90	5	5	1.74
Swanswick					
Georgia	2.03	0.65	3	10	2.56
Long Pond	1.21	0.60	3	6	2.74
Duncans					
Hyde Hall	1.50	0.50	3	6	2.75
Steelfield	1.77	0.85	3	6	2.31
Etingdon	1.90	1.20	3	5	2.17
Lottery	1.45	0.80	2	4	2.01
Falmouth	1.07	0.30	3	12	1.81
Florence Hall	0.91	0.60	3	4	
Good Hope	11.50	0.70	12	6	
Unity					
Kent					
Canaan	2.28	1.28	4	3	2.44
Content	1.90	0.56	16	8	2.26
Bellfield					
Guilbro	1.74	0.75	4	15	
Glasgow	2.06	1.00	12	6	
Moor Park					
Spring Estate	1.17	0.42	9	4	3.21
Montego Bay	0.69	0.15	12	10	2.06
Catherine Hall	0.73	0.16	12	7	2.02
Friendship	0.95	0.36	12	5	
Retirement	1.22	0.70	12	6	
King Gate	1.01	0.44	12	5	2.94
Blue Hole					
Haughton Court	1.50	0.75	12	4	1.86
Lucea	1.59	0.91	12	7	2.16
Green Island	2.93	1.10	14	8	

CENTRAL SUB-DIVISION.

Rio Magno	3.14	2.00	12	6	
Headworks, Rio Cobre	0.85	0.50	11	3	1.03
Linstead	3.10	1.15	5	10	1.96
Berkshire Hall	1.71	0.36	5	8	2.09
Point Hill	4.23	1.28	15	7	3.85
Ballas Gate	1.15	0.38	18	6	
Worthy Park					
Croft Hill	1.82	0.55	5	8	1.53
Chapelton	2.87	0.76	15	10	1.80
Danks Works	2.10	0.46	14	12	1.85
Savoy House	2.40	0.55	14	14	1.74
Crooked River	3.22	0.57	3	14	
Trout Hall	2.41	0.49	15	11	
Frankfield	2.54	0.60	14	7	

Mean ... 1.08 ...

WEST-CENTRAL DIVISION.	FEB, 1918.					SOUTHERN DIVISION.	FEB., 1918.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Whitney	...	...	...	...	...	Morant Point L. H.	3.25	1.10	4	16	2.74
Mocho, Clarendon	0.89	0.45	3	3	1.77	Elliott Hill	...	...	...	...	...
Spaldings	2.98	0.81	24	16	...	Pleasant Hill	5.42	1.75	5	10	...
Tan-y-bryn	4.16	1.68	15	17	...	East Prospect	5.37	1.25	4	13	1.81
Brokenhurst	3.27	0.45	16	13	2.67	Morant Bay	3.37	0.95	4	15	2.03
Christiana	1.64	0.46	5	10	2.75	Easington	1.71	0.69	4	10	1.52
Chudleigh	1.72	0.36	7	16	2.81	Bull Bay	0.78	0.28	6	4	0.53
Shooter's Hill	3.65	0.86	24	13	1.78	Bellevue	1.55	0.33	4	13	...
Spitzbergen	...	...	...	...	...	Gordon Town	0.90	0.60	4	2	1.76
Kendal, Manchester	3.70	0.92	24	7	2.59	Widcombe	1.12	...	...	8	...
Marshall's Pen	2.49	0.48	19	7	3.74	Hope Gardens	1.07	...	...	...	1.19
Mandeville	4.22	1.32	18	15	2.87	King's House Gardens	1.00	...	...	...	1.55
Carlton, Mandeville	4.24	1.28	4	15	2.87	Melrose	0.93	0.18	19	8	...
The Hill	2.20	0.90	4	10	...	Halfway Tree	0.64	0.21	19	5	0.88
Fairfield, Manchester	1.52	0.22	18	14	3.11	Lunatic Asylum	0.65	0.15	8	8	0.54
Mile Gully	...	...	...	...	...	Glenmore Road	0.62	0.15	8	11	...
Ulster Spring	1.40	1.30	5	2	2.76	Kingston P. W. Office	0.52	0.19	8	7	0.67
Freeman's Hall	1.90	1.05	5	6	...	Plumb Point L. H.	0.86	0.28	8	7	0.72
Albert Town	1.00	0.58	6	2	2.60	Clifton Pen	0.50	0.25	11	3	...
Lowe River	0.15	0.10	24	2	2.69	Quarantine Station	0.24	0.17	8	2	...
Troy	2.70	1.30	9	6	2.82	Spanish Town	1.22	0.79	10	7	1.34
Windsor Pen, Trel.	0.55	0.55	5	1	2.36	Hog Hole, St. Catherine...	1.84	0.61	17	7	1.82
Medina	1.16	0.53	15	4	...	Hartlands	0.70	0.32	26	4	...
Balaclava Police Station...	1.81	0.60	10	10	2.29	Belmont, Guanaboa Vale	...	...	...	...	...
Siloah	3.97	2.97	12	7	2.37	Old Harbour	1.93	0.86	16	3	1.81
Appleton Estate	2.31	1.01	10	9	2.75	May Pen	1.80	0.70	11	7	1.26
Maggotty	3.12	0.85	7	10	2.70	Happy Hut	3.88	2.28	7	5	...
Butlers	...	...	...	...	...	Dunkley's, Vere	1.76	0.85	24	6	1.17
Dromilly Pen	1.15	0.50	19	4	...	Dry River "	2.61	0.99	11	5	1.02
Spring Vale	0.40	0.30	12	2	...	Denbigh	...	...	...	...	...
Garland	...	...	...	...	...	Toll Gate	2.17	1.50	7	5	...
Mocho, Catadupa	...	...	...	...	...	Woodleigh	...	...	...	...	...
Springfield, St. Elizabeth	6.37	1.70	14	15	...	New Yarmouth	...	...	...	...	...
Chesterfield, St. James	4.33	0.75	6	11	...	Exeter, Vere	0.80	0.60	8	3	0.92
Catadupa Rly. Station	...	...	...	...	...	Rhymesbury	...	...	...	...	...
Kempshot	1.35	0.82	12	9	3.00	Milk River	0.67	0.45	9	2	1.64
Cambridge, St. James	2.98	0.65	9	10	...	Clarendon Pk. Ry. St.	...	...	...	...	...
Ducketts	3.71	1.44	8	7	...	Retrieve	1.31	0.24	4	9	...
New Market, Police St.	4.44	1.15	15	15	...	Hog Hole, S. Manch.	1.85	1.10	18	7	...
The Bog, New Market	5.70	0.80	15	15	...	Stone's Hope	2.41	0.51	8	8	2.22
Kew Park	3.49	1.70	9	12	2.73	Newport, Manchester	2.69	0.52	24	14	2.94
Montpelier	1.23	0.37	5	7	...	Great Valley, Man.	1.83	0.65	18	11	2.48
Burnt Ground	1.10	0.70	14	2	...	Alligator Pond	1.60	0.50	18	6	1.20
Knockalva	1.07	0.37	9	10	...	Southfield, St. Elizabeth	1.97	0.56	13	10	...
Ramble	1.60	0.60	19	3	...	Lititz	1.69	1.08	18	7	...
Petersville	6.59	2.92	15	13	2.91	Torrington	1.04	0.22	7	5	2.52
Darliston	5.80	2.00	6	14	3.63	Bethlehem, St. Eliz.	0.94	0.32	7	8	2.55
Bluefields	5.83	1.53	7	11	3.95	Santa Cruz	2.20	0.50	10	10	2.48
Whithorn	6.00	1.25	3	13	3.40	Pedro Plains Police St.	1.10	0.50	26	7	1.43
Water Works Pen	6.80	1.40	7	11	...	Mountainside	1.11	0.44	11	7	...
Great Valley, Han.	1.01	0.71	14	3	3.18	Black River	1.74	0.94	7	5	1.78
Fontabelle, Westm.	5.54	1.30	15	12	2.63	Font Hill	5.10	1.90	15	10	1.38
Belleisle	5.24	1.25	15	11	2.40	Mount Edgecombe	5.16	1.48	15	14	2.48
Morgan's Bridge	6.74	2.30	3	9	2.43	Sweet River	4.28	1.00	7	11	2.32
King's Vale Police St.	3.60	0.70	19	10	2.73	Windsor, Sav.-la-mar	2.52	0.65	7	10	2.34
						Orchard	2.94	0.62	7	10	...
						Sav.-la-mar	3.04	0.74	15	14	2.00
						Little London	4.47	1.46	3	11	...
						Retreat	6.42	1.86	3	12	2.36
						Negril Point L.H.	4.35	1.17	3	13	1.54
Mean	3.15	...	...	...	...	Mean	2.17	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

SHOCKS OF EARTHQUAKE IN FEB., 1918.

DIVISIONAL AND ISLAND RAINFALL.	FEB.		Date.	Standard Time (Approx.) hr. min.	Inten- sity.	Notes: where felt, etc.
	1918.	Average.				
	In.	In.				
North-Eastern Division	6.20	5.29	23	6 15 a.m.	II	Mt. Holstein N.E. and S.W.
Northern "	1.98	2.55				
West-Central "	3.15	2.76				
Southern "	2.17	1.67				
The Island	3.38	3.07				

The rainfall over the Island was the average. The heaviest fall was 13.84 inches at Moore Town and the smallest 0.24 at the Quarantine Station.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

METEOROLOGICAL RESULTS for the year 1917.

SEASANT Pt. LIGHT HOUSE. Mean results for the year 1917. Elevation, 8 feet.

Month.	Barometer.		Temperature.					Extremes for the Month.			Dewpoint and humidity.			Rain-fall.	Miles of Wind per diem.	
	7 a.m.	3 p.m.	Mean.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Min.	Range	7 a.m. 3 p.m.				
												°	°	°	°	°
January	30.048	30.004	76.6	75.8	79.2	80.6	72.8	7.8	83.5	60.0	23.5	68.1	67.7	68	2.78	201 260 270 318 250 222
February	30.078	30.044	76.4	75.7	78.8	80.6	72.7	7.9	82.0	63.5	18.5	68.4	67.3	68	1.32	
March	30.045	30.012	77.3	76.6	80.4	81.3	72.8	8.5	82.0	64.0	18.0	68.8	67.3	65	1.94	
April	29.947	29.916	77.1	76.3	80.7	83.0	70.4	12.6	85.0	63.0	22.0	68.8	68.0	65	2.88	
May	29.957	29.923	79.9	79.3	83.1	84.7	74.6	10.1	87.5	68.0	19.5	71.3	70.9	69	3.00	
June	29.977	29.955	80.9	80.4	83.6	85.2	76.3	8.9	87.0	71.0	16.0	73.2	72.7	70	6.97	
July	29.994	29.975	82.0	81.6	84.3	85.8	78.2	7.6	87.0	74.0	13.0	73.1	73.2	70	2.05	
August	29.986	29.955	81.7	81.7	84.0	86.1	77.0	9.1	87.5	71.0	16.5	73.2	73.6	71	5.31	
September	29.923	29.890	80.9	80.5	83.4	86.0	75.6	10.4	88.0	71.0	17.0	73.3	73.4	72	15.59	
October	29.933	29.877	81.1	80.9	84.2	86.0	75.4	10.6	87.0	70.5	16.5	72.8	73.3	70	1.33	
November	29.927	29.889	78.1	78.3	80.1	82.2	73.8	8.4	85.5	67.0	18.5	71.1	71.0	69	8.86	
December	29.960	29.916	76.4	75.9	79.0	80.7	71.9	8.8	83.5	64.5	19.0	67.0	68.7	71	7.33	
Total Means	29.981	29.946	79.0	78.6	81.7	83.5	74.3	9.2	85.5	67.3	18.2	70.8	70.6	69	59.36	..

Mean results, continued.

Month.	Wind from and miles per hour.		Clouds in tenths of the Sky.						Weather Conditions.
	7 a.m.	3 p.m.	Lower.		Middle.		Upper.		
			7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	
January	NE 16.0	NE 14.0	4.0	2.5	0.4	1.0	0.3	0.2	14 days fine and dry; 6 days passing showers.
February	NNE 14.5	NE 13.0	3.2	2.3	1.0	1.4	0.3	2.5	Norther 3rd and 4th, 20 days fine, earthquake; 18th 6.25 a.m., and 25th 2.40 p.m. 20 to 25 secs.
March	NE 15.3	ENE 14.3	4.0	1.5	1.1	2.2	0.1	0.0	Fine and dry. Dis an lightning a night on 31st.
April	Var. 8.2	ENE 11.0	2.9	2.5	0.7	1.3	0.5	0.5	Fine and dry. Thunders orm on three days, distant lightning at night on 6 days
May	NE 14.	E 14.0	3.1	1.8	1.4	1.2	0.6	0.5	Norther 16th and 17th. Distant lightning at night 6 days. Fine and dry.
June	NE 14.9	E 13.4	3.0	2.3	1.0	1.9	2.3	1.5	Thunderstorm on 2 days, distant lightning on 12 days. Rain during 1st week; then fine.
July	NE 16.0	ENE 14.0	1.6	1.5	1.8	1.3	1.5	1.4	Squally on 5 days E. gale 13th and 14th
August	NE 12.0	ENE 11.0	3.3	2.2	1.3	1.4	1.4	1.6	Thunderstorm on 8 days; squally on 12 days.
Sept.	Var. 12.0	E 13.0	3.0	2.0	1.7	2.6	1.5	0.7	Thunders'orm on 2 days. Hurricane 22nd and 23rd. Rain on 24 days. Anemometer blown away.
October	NE 9.5	ENE 9.0	1.7	1.2	1.9	1.5	1.5	2.5	Fine and dry, distant lightning on 4 nights.
Nov.	Var. 19.0	N 15.0	4.9	4.3	0.7	1.9	1.6	1.7	N. gale 8th and 9th. Norther on 25th ending as NE gale on 27th.
December	NNNE 14.0	NNE 14.0	5.1	3.3	0.9	1.4	0.7	0.1	Rain 18 days. Thunderstorm 1 day.
Means	NE 13.8	NE 13.0	3.1	2.3	1.2	1.6	1.0	1.1	Anemometer means not taken, being a broken period 5 months and 22 days.

14 days fine and dry: 6 days passing showers.

Norther 3rd and 4th, 20 days fine, earthquake: 18th 6.25 a.m., and 25th 2.40 p.m. 20 to 25 secs.

Fine and dry. Dis an lightning a night on 31st.

Fine and dry. Thunders orm on three days, distant lightning at night on 6 days

Norther 16th and 17th. Distant lightning at night 6 days. Fine and dry.

Thunderstorm on 2 days, distant lightning on 12 days. Rain during 1st week; then fine.

Squally on 5 days E. gale 13th and 14th

Thunderstorm on 8 days; squally on 12 days.

Thunders orm on 2 days. Hurricane 22nd and 23rd. Rain on 24 days. Anemometer blown away.

Fine and dry, distant lightning on 4 nights.

N. gale 8th and 9th. Norther on 25th ending as NE gale on 27th.

Rain 18 days. Thunderstorm 1 day.

Anemometer means not taken, being a broken period 5 months and 22 days.



JAMAICA

W E A T H E R R E P O R T

FOR THE MONTH OF

MARCH, 1918.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
Morant Pt. Light House	ft. 8	in. 30.074	in. 29.972	° 76.1	° 80.3	° 82.1	° 71.1	° 11.0	° 84.0	25*	° 64.0	23	° 20.0
Kingston	24	29.993	29.950	69.3	80.8	85.3	67.6	17.7	87.5	9*	65.3	7	22.2
Negril Point Light House	33	29.998	29.946	69.3	81.6	84.1	66.6	17.5	87.5	5	62.6	10	24.9
Castleton Gardens	496	..	..	64.9	78.2	85.1	64.0	21.1	88	24	59	8	29
Hope Gardens†	668	30.070	29.095	67.0	75.9	85.0	65.5	19.5	89	2	59	11	30
Bavinton, Stony Hill**	1,349	30.001	29.944	65.6	73.8	78.4	63.4	15.0	81.5	2*	60.5	8	21.0
Stony Hill Indus. School	1,400	..	..	65.9	73.5	78.5	63.7	14.8	83	2*	61	27	22
Kempshot	1,773	29.989	29.944	67.0	72.6	78.8	65.5	13.3	82.3	24	63.3	10	19.0
Hill Gardens	4,900	25.296	25.253	61.6	62.6	65.8	52.7	13.1	67	4*	50.0	27	17

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.	7 a.m.	3 p.m.			7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.
Morant Pt. Light House	ft. 8	° 68.2	° 76	° 68.4	° 67	in. 2.52	miles ..	NE	m. 10.5	ENE	m. 10.5	L. 2.0	M. 1.6	U. 0.2	L. 1.4	M. 2.5	U. 0.4
Kingston	24	64.6	85	68.0	66	1.02	170	N	4.6	SE	13.2	1.0	0.2	0.3	4.6	2.1	0.6
Negril Point Light House†	33	65.7	87	69.1	66	4.27	174	ENE	7.0	Var.	9.9	0.6	0.1	1.0	1.8	6.0	0.0
Castleton Gardens	496	62.5	93	69.0	73	5.94	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	61.9	84	65.8	71	4.60	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	62.2	89	64.8	73	12.66	..	N	1.1	NE	3.0	1.6	1.2	0.8	5.5	3.2	0.2
Stony Hill Indus. School	1,400	61.6	86	65.6	76	11.27	..	..	..	..	..	..	..	..	..	..	..
Kempshot	1,773	64.8	84	69.0	75	6.79	137	E	5.4	Var.	2.4	0.9	0.6	0.6	3.1	3.1	2.0
Hill Gardens	4,900	56.7	83	59.2	37	7.63	..	..	..	..	..	..	..	..	..	..	..

* and on other days.

† Negril Point Light House.

** Bavinton, Stony Hill.

Wind 11 p.m.

Mean Min. temp. on grass

Earth temp. 1 ft. below surface

" 4ft. " "

† Hope Gardens. Bar read at 9 a.m. and 3 p.m.

ENE 5.7

58.9

73.0

72.9

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending his report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.		MAR., 1918.				
		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
			Amount	Date.		
	In.	In.			In.	
Manchioneal	... 2.71	0.57	5	9	3.26	
Spring Valley	... 4.67	0.87	14	14	...	
Bath	... 2.09	0.34	13	13	4.57	
Priestman's River	... 1.33	0.44	14	6	...	
Moore Town	... 5.99	1.20	6	9	10.97	
Port Antonio	... 2.30	0.45	3	10	4.90	
Fellowship	... 4.33	0.81	14	16	8.09	
Johnson River Bridge	... 1.24	0.24	3	16	2.59	
Shrewsbury	... 3.02	0.65	2	13	11.31	
Cedar Valley, St. Thos.	... 3.90	1.42	25	7	3.30	
Moy Hall, St. Thos.	... ..	...	...	...	...
Brooklodge	... 4.98	1.72	22	7	...	
Lennox	... ..	...	...	...	...
Farm Hill	... 8.86	2.90	15	7	5.01	
Hill Gardens	... 6.78	1.21	30	16	5.19	
Buff Bay	... 2.22	1.30	12	9	5.79	
Vinery	... ..	...	...	...	...
Greenvale, Portland	... 5.24	2.13	10	7	11.74	
Mt. Holstein	... 10.01	1.57	10	21	9.53	
Irish Town	... 4.52	1.06	2	7	2.61	
Rose Hill	... 16.28	3.00	26	16	...	
Hardware Gap	... 9.80	...	...	...	4.50
Stony Hill Ind. School	... 11.27	2.62	14	21	2.99	
Castleton Gardens	... 5.94	1.12	31	16	4.93	
Lawrence Tavern	... 9.91	2.60	17	14	2.69	
Cedar Valley, Red Hills	... 9.57	2.58	25	14	...	
Zion Hill	... 6.50	1.09	17	17	...	
Agualta Vale	... 1.29	0.31	26	10	5.30	
Water Valley	... 2.10	0.75	9	7	3.39	
Richmond, St. Mary	... 1.53	0.42	26	12	5.75	
Highgate	... 0.59	0.27	10	4	...	
Hampstead, St. Mary	... 1.69	0.94	8	7	6.07	
Guy's Hill	... 5.18	1.36	20	12	...	
Lucky Hill	... 3.07	1.50	18	10	...	
Rio Hoe	... 2.86	1.80	15	9	3.64	
Unity Valley	... 4.65	2.65	15	12	3.64	
Moneague	... 4.15	2.35	15	10	3.03	
Claremont	... 3.35	1.90	15	5	3.43	
Albion, St. Ann	... 5.64	2.40	15	8	3.61	
Averham Park	... 3.19	1.00	18	6	3.81	
Mean	4.66	...	...	...	...

NORTHERN DIVISION.		MAR., 1918.				
		Total fall.	Greatest fall in 24 hours.			Average.
			Amount.	Date.	Days on which 0.01 or more fell.	
		In	In.			In
Port Maria	...	1.67	0.63	12	8	3.19
Ocho Rios	...	1.85	0.60	12	5	3.54
Bogue, Ocho Rios	...	1.90	0.50	12	6	4.58
Rockfield	...	2.58	0.72	18	13	...
Drax Hall	...	1.32	0.40	9	8	3.21
Liberty Hill	...	1.36	0.48	18	4	5.00
St. Ann's Bay	...	2.30	0.75	8	6	2.40
Seville	...	1.15	0.55	8	4	3.07
Richmond Estate	...	1.49	0.39	12	6	2.63
Llandovery	...	1.60	0.42	12	5	2.80
Runaway Bay	...	0.22	0.22	3	1	...
Brown's Town	...	3.64	1.02	18	8	2.99
Alexandria	...	4.61	1.68	17	5	...
Watt Town, St. Ann	...	4.80	3.17	26	10	...
Home Castle	...	0.95	0.30	18	4	2.56
Richmond Pen	...	8.23	3.65	26	10	2.42
Mahogany Hall	...	3.19	2.25	21	11	2.57
Barnstaple	...	...	...	...	...	...
Bryan Castle	...	0.90	0.50	19	2	1.88
Braco	...	0.40	0.25	18	2	1.62
Arcadia	...	1.50	0.77	18	3	1.84
Lancaster	...	0.30	0.10	18	3	1.92
Harmony Hall	...	0.23	0.10	19	3	1.74
Vale Royal	...	1.92	1.11	15	3	2.28
Colchis Pen	...	2.92	0.74	15	10	2.02
Swanswick	...	...	...	...	...	...
Georgia	...	0.75	0.65	14	2	2.01
Long Pond	...	0.91	0.54	15	2	...
Duncans	...	...	...	...	...	...
Hyde Hall	...	0.80	0.60	15	2	...
Steelfield	...	0.98	0.70	15	2	...
Etingdon	...	1.25	1.25	15	1	...
Lottery	...	0.90	0.35	15	4	2.00
Falmouth	...	1.23	1.00	28	3	1.76
Florence Hall	...	0.47	0.35	18	2	2.04
Good Hope	...	...	...	...	...	...
Unity	...	...	...	...	...	...
Kent	...	...	...	...	...	...
Canaau	...	2.52	1.98	26	5	2.23
Content	...	2.45	1.45	26	4	...
Guilsbro	...	4.40	1.65	26	14	1.77
Glasgow	...	2.40	1.75	26	3	...
Moor Park	...	...	...	...	...	...
Spring Estate	...	2.63	2.00	26	3	1.94
Montego Bay	...	4.00	1.60	26	9	1.58
Catherine Hall	...	4.67	1.55	26	7	1.94
Friendship	...	6.75	2.17	26	9	...
Retirement	...	9.27	2.87	19	12	...
King Gate	...	8.51	2.22	19	12	3.18
Blue Hole	...	2.32	0.70	14	7	...
Haughton Court	...	1.50	0.90	14	6	2.47
Lucea	...	1.16	0.55	19	8	2.33
Green Island	..	5.28	2.10	14	8	...
CENTRAL SUB-DIVISION.						
Rio Magno	...	4.44	1.28	20	9	...
Headworks, Rio Cobre	...	4.88	0.78	16	17	2.84
Linstead	...	6.12	3.30	14	11	...
Berkshire Hall	...	4.11	1.93	15	9	2.96
Point Hill	...	5.51	1.06	15	11	...
Bellas Gate	..	2.23	0.92	16	4	...
Worthy Park	...	...	...	...	...	...
Croft Hill	...	2.76	1.55	24	12	3.19
Chapelton	...	7.95	2.78	30	9	2.70
Danks Works	...	7.71	1.63	29	15	3.26
Savoy House	...	7.63	1.73	30	15	4.07
Crooked River	...	10.72	2.05	29	14	..
Trout Hall	...	8.25	2.90	29	13	..
Frankfield	...	5.84	2.14	29	10	..
Mean	—	2.59	...	...	...	...

MAR., 1918.						MAR., 1918.					
WEST-CENTRAL DIVISION.						SOUTHERN DIVISION.					
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Whitney ...	..	..	..	..	..	Morant Point L. H. ...	2.52	0.80	20	18	2.11
Mocho, Clarendon ...	..	..	..	..	..	Elliott Hill ...	1.94	0.28	15	18	..
Spaldings ...	8.24	1.72	25	17	..	Pleasant Hill ...	1.64	0.53	28	9	..
Tan-y-bryn ...	11.65	2.79	25	18	..	East Prospect ...	2.70	1.20	15	11	2.30
Brokenhurst ...	5.15	2.10	15	5	2.70	Morant Bay ...	1.25	0.75	15	6	1.79
Christiana ...	9.16	1.81	30	16	4.06	Easington ...	1.64	0.65	25	5	2.94
Chudleigh ...	11.20	2.18	30	14	4.22	Bull Bay ...	1.50	1.70	27	4	0.34
Shooter's Hill ...	6.21	1.20	23	14	3.25	Bellevue ...	3.94	1.07	22	15	..
Spitzbergen ...	..	..	..	..	..	Gordon Town ...	4.05	1.25	2	18	1.54
Kendal, Manchester ...	9.86	2.35	30	8	3.44	Widcombe ...	5.64	..	..	16	..
Marshall's Pen ...	7.99	1.96	23	12	4.86	Hope Gardens ...	4.60	..	..	..	1.90
Mandeville ...	10.38	2.63	30	15	4.28	King's House Gardens ...	3.67	1.20	14	4	1.26
Carlton, Mandeville ...	12.40	3.70	23	15	4.28	Melrose ...	2.31	0.94	14	9	..
The Hill ...	9.59	2.50	23	12	..	Halfway Tree ...	1.22	0.61	14	4	1.06
Fairfield, Manchester ...	7.53	1.67	23	19	3.84	Lunatic Asylum ...	1.86	1.21	16	7	0.97
Mile Gully ...	..	..	..	..	..	Glenmore Road ...	1.13	0.54	16	9	..
Ulster Spring ...	14.75	2.50	19	14	3.40	Kingston P. W. Office ...	1.02	0.62	16	5	1.05
Freeman's Hall ...	24.97	3.90	19	15	..	Plumb Point L. H. ...	0.63	0.36	30	2	0.91
Albert Town ...	11.69	1.45	26	14	4.33	Clifton Pen ...	1.35	0.90	16	3	..
Lowe River ...	17.50	3.50	18	15	6.51	Quarantine Station ...	0.33	0.13	22	2	..
Troy ...	9.05	1.85	30	10	6.17	Spanish Town ...	3.08	1.54	12	7	..
Windsor Pen, Trel. ...	6.04	1.80	15	16	3.07	Hog Hole, St. Catherine... ..	2.68	0.62	12	9	2.12
Medina ...	13.32	2.47	25	12	..	Hartlands ...	1.31	0.40	26	5	1.74
Balaclava Police Station... ..	13.81	2.32	22	19	4.74	Belmont, Guanaboa Vale ...	8.55	2.57	18	11	..
Siloah ...	17.90	3.15	15	18	5.68	Old Harbour ...	5.85	2.50	15	8	..
Appleton Estate ...	18.55	3.26	14	20	5.47	May Pen ...	7.49	1.65	29	11	2.01
Maggotty ...	20.15	3.50	17	22	5.80	Happy Hut ...	10.50	2.05	25	10	..
Butlers ...	22.18	2.93	21	21	..	Dunkley's, Vere ...	5.69	2.12	30	6	1.49
Dromilly Pen ...	4.00	1.25	19	11	..	Dry River " ...	1.94	0.96	30	7	1.83
Spring Vale ...	2.26	1.65	19	6	2.92	Denbigh ...	..	..	..	..	..
Garland ...	..	..	..	..	..	Toll Gate ...	7.05	2.60	29	10	..
Mocho, Catadupa ...	..	..	..	..	..	Woodleigh ...	9.60	2.40	25	11	..
Springfield, St. Elizabeth ...	22.58	2.80	17	21	..	New Yarmouth ...	2.42	0.85	24	4	1.26
Chesterfield, St. James ...	20.32	3.00	17	22	..	Exeter, Vere ...	..	..	..	..	..
Catadupa Rly. Station ...	..	..	..	..	..	Rhymesbury ...	..	..	..	..	..
Kempshot ...	6.79	2.01	26	13	3.00	Milk River ...	2.19	1.50	29	4	1.66
Cambridge, St. James ...	9.10	1.53	26	14	..	Clarendon Pk. Ry. St. ...	..	..	..	..	..
Ducketts ...	15.20	1.87	26	16	..	Retrieve ...	2.28	1.00	16	9	..
New Market, Police St. ...	17.08	1.97	26	25	..	Hog Hole, S. Manch. ...	5.97	1.50	16	10	..
The Bog, New Market ...	17.57	2.07	6	24	..	Stone's Hope ...	5.13	1.91	15	7	2.64
Kew Park ...	20.36	3.50	15	21	4.10	Newport, Manchester ...	7.12	1.80	15	11	3.03
Montpelier ...	6.70	2.80	16	9	..	Great Valley, Man. ...	8.29	1.80	23	16	2.28
Burnt Ground ...	10.94	2.80	14	18	4.19	Alligator Pond ...	6.06	1.32	15	12	1.73
Knockalva ...	17.46	3.08	15	21	..	Southfield, St. Elizabeth ...	7.05	2.30	8	10	..
Ramble ...	17.25	3.00	27	11	..	Lititz ...	6.91	2.58	23	11	..
Petersville ...	15.24	4.29	16	19	5.18	Torrington ...	8.45	2.00	29	15	3.47
Darliston ...	14.70	2.20	19	25	6.54	Bethlehem, St. Eliz. ...	7.03	1.65	29	16	4.25
Bluefields ...	11.11	3.22	16	10	8.24	Santa Cruz ...	7.17	3.45	19	20	4.26
Whithorn ...	9.50	2.46	16	20	5.87	Pedro Plains Police St. ...	1.53	.66	8	8	2.34
Water Works Pen ...	11.12	2.25	16	19	..	Mountainside ...	8.11	3.00	23	13	..
Great Valley, Han. ...	10.91	3.77	19	9	3.79	Black River ...	5.48	1.89	16	12	2.59
Fontabelle, Westm. ...	13.20	2.60	6	16	3.94	Font Hill ...	7.45	0.95	26	13	4.09
Belleisle ...	11.70	2.05	6	16	4.75	Mount Edgecombe ...	5.10	0.96	25	18	4.10
Grange Hill ...	15.89	3.20	17	18	3.94	Sweet River ...	5.31	1.30	19	15	3.54
King's Vale Police St. ...	10.15	1.80	17	16	4.98	Windsor, Sav.-la-mar ...	5.12	1.30	25	15	2.90
						Orchard ...	6.03	1.82	25	16	..
						Sav.-la-mar ...	4.07	0.84	17	15	2.63
						Little London ...	6.64	1.27	28	12	..
						Retreat ...	9.54	1.80	24	13	3.28
						Negril Point L.H. ...	4.27	1.15	20	14	2.34
Mean ...	11.68	..	..	..	..	Mean ...	4.36	..	..	..	..

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

SHOCKS OF EARTHQUAKE IN MAR., 1918.

DIVISIONAL AND ISLAND RAINFALL.	MAR.		Date.	Standard Time (Approx.) hr. min.	Inten- sity.	Notes: where felt, etc.
	1918.	Average.				
	In.	In.				
North-Eastern Division	... 4.66	4.61				
Northern "	... 2.59	2.36				
West-Central "	... 11.68	4.18				
Southern "	... 4.36	2.22				
The Island	... 5.82	3.34				
				No earth	quake	this month.

In the west-central division the rains were very heavy. 20 to 25 inches falling at several places. On the other hand there was but little rain on the northern shores of the Island.

CORRIGENDA.—W.R. No. 480 p. 2 ; N. div. Alexandria. For 7.54 read 1.54.
Good Hope. For 11.50 read 1.50.
P. 3 W.C. div. Brokenhurst, For 3.27 read 3.54

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.



JAMAICA

WEATHER REPORT

FOR THE MONTH OF

APRIL, 1918.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky*; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House	8	29.944	29.898	77.8	81.5	83.6	73.5	10.1	86.0	10	63.0	6	20.0
Kingston	24	29.927	29.878	73.2	82.2	86.1	70.4	15.7	88.4	7	67.4	1	21.0
Negril Point Light House	33	29.925	29.877	73.8	82.8	85.2	69.9	15.3	89.3	15	67.0	22	22.3
Castleton Gardens	496	..	..	66.6	80.9	84.3	65.5	18.8	88	5	61	1	27
Hope Gardens†	668	29.979	29.892	74.4	81.9	85.6	67.7	17.9	88	26*	65	8*	23
Bavinton, Stony Hill**	1,349	29.937	29.879	68.4	76.4	80.5	65.1	15.4	83.5	26	61.0	1	22.5
Stony Hill Indus. School	1,400	..	..	67.6	75.9	80.0	65.0	15.0	84	7	63	1	21
Kempshot	1,773	29.932	29.876	69.0	73.8	79.2	67.3	11.9	82.8	19	66.0	9	16.8
Hill Gardens	4,900	25.027	25.019	61.9	63.0	66.0	54.9	11.1	67	13*	53.0	3	14

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall. in.	Wind per diem. miles.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.					7 a.m.	3 p.m.			7 a.m.	3 p.m.				
	ft.	°	°			in.	miles					L.	M.	U.	L.	M.	U.
Morant Pt. Light House	8	70.4	78	69.1	66	6.63	230	NE	10.6	ENE	10.2	3.0	1.3	0.4	2.5	1.3	0.6
Kingston	24	68.3	85	70.3	63	3.16	199	N	3.6	SE	14.6	1.0	1.1	0.8	3.4	3.0	0.5
Negril Point Light House†	33	68.3	83	71.2	68	6.19	209	E	7.1	Var.	11.3	1.5	0.1	1.0	1.6	5.6	0.0
Castleton Gardens	496	64.6	93	70.9	71	4.92	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	63.8	81	70.0	67	3.21	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	64.8	89	68.2	76	4.50	..	NNE	1.1	S	3.9	1.8	0.9	1.3	5.1	3.2	0.4
Stony Hill Indus. School	1,400	63.7	88	68.4	77	4.47	..	..	..	..	..	..	..	..	..	..	..
Kempshot	1,773	66.3	81	70.9	79	11.25	132	E	4.8	ENE	3.0	0.9	0.1	2.1	4.7	2.2	0.2
Hill Gardens	4,900	58.7	59	60.0	89	2.59	..	..	..	..	..	..	..	..	..	..	..

* and on other days.

† Negril Point Light House.

** Bavinton, Stony Hill. Mean Min. temp on grass 61.5
Earth temp 1 ft. below surface 75.3
" 4ft. " " 74.0

† Hope Gardens. Bar. read at 9 a.m. and 3 p.m.

E 7.3

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending his report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

		APRIL, 1918.											
NORTH-EASTERN DIVISION.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.							
			Amount.	Date.									
		In.	In.			In.							
Mauchioneal	...	10.25	1.77	11	21	6.32	Barnstaple	...	1.85	1.40	12	4	2.12
Spring Valley	...	11.44	2.20	11	19	10.70	Bryan Castle	...	1.90	1.00	12	6	2.21
Bath	...	7.18	2.34	11	17	5.65	Braco	...	2.85	2.10	12	5	2.28
Priestman's River	...	7.79	2.50	11	11	...	Arcadia	...	2.74	1.25	13	6	2.26
Moore Town	...	9.69	2.00	30	20	9.77	Lancaster	...	2.07	1.25	13	6	2.07
Port Antonio	...	5.64	2.04	17	16	6.27	Harmony Hall	...	3.31	1.10	12	8	2.84
Fellowship	...	7.76	2.69	16	14	9.24	Vale Royal	...	6.17	2.05	10	6	3.08
Johnson River Bridge	...	6.13	2.81	11	19	4.38	Colchis Pen	...	...	...	...	...	...
Shrewsbury	...	8.07	4.00	16	11	5.33	Swanswick	...	...	...	...	...	...
Cedar Valley, St. Thos.	...	5.46	0.50	12	6	3.94	Georgia	...	3.23	1.50	12	8	...
Moy Hall, St. Thos.	Long Pond	...	...	...	...	...	...
Brooklodge	...	2.87	0.96	7	9	...	Duncans	...	...	...	...	...	...
Lennox	Hyde Hall	...	...	...	...	...	...
Farm Hill	...	1.06	0.90	12	2	5.19	Steelfield	...	...	...	...	...	...
Hill Gardens	...	2.59	0.50	21	11	6.09	Elingdon	...	...	...	...	...	...
Buff Bay	...	3.36	1.65	16	10	5.73	Lottery	...	1.80	0.60	9	4	2.30
Belvedere	...	5.65	1.30	16	12	...	Falmouth	...	5.27	1.57	9	5	2.20
Greenvale, Portland	...	9.10	2.33	16	10	8.68	Florence Hall	...	4.06	1.40	9	4	...
Mt. Holstein	...	4.65	1.12	8	14	6.00	Good Hope	...	5.88	1.75	12	8	...
Irish Town	...	3.61	2.05	21	4	5.11	Unity	...	...	...	...	...	...
Rose Hill	...	10.94	2.38	9	11	...	Kent	...	...	...	...	...	...
Hardware Gap	...	10.10	...	...	...	5.86	Canaan	...	8.51	2.30	13	12	3.62
Stony Hill Ind. School	...	4.47	0.66	10	18	5.24	Content	...	...	...	...	...	...
Castleton Gardens	...	4.92	0.70	30	17	6.80	Bellfield	...	...	...	...	...	...
Lawrence Tavern	...	7.14	1.50	22	13	4.24	Guildbro	...	10.56	2.68	13	17	3.25
Cedar Valley, Red Hills	...	8.92	2.06	9	...	...	Glasgow	...	6.05	1.15	25	10	...
Zion Hill	Moor Park	...	...	...	...	...	...
Agualta Vale	...	4.56	1.18	8	12	4.95	Spring Estate	...	4.34	2.25	13	6	2.08
Water Valley	...	3.79	0.58	9	10	4.44	Montego Bay	...	3.17	1.81	27	11	3.71
Richmond, St. Mary	...	4.98	1.46	13	10	4.54	Catherine Hall	...	3.47	1.90	27	10	2.93
Highgate	...	5.22	2.10	19	11	...	Friendship	...	4.32	1.45	13	10	...
Hampstead, St. Mary	...	5.15	2.58	9	7	6.18	Retirement	...	7.10	1.88	13	10	...
Guy's Hill	...	6.23	1.55	25	11	...	King Gate	...	11.91	2.95	9	10	3.70
Lucky Hill	...	7.76	3.23	9	10	...	Blue Hole	...	8.58	3.10	13	10	...
Rio Hoe	...	7.24	1.92	11	12	4.38	Haughton Court	...	5.80	1.45	17	11	3.67
Unity Valley	...	6.58	2.35	9	13	4.61	Lucea	...	8.83	3.10	17	11	4.07
Moneague	...	5.24	1.99	9	10	4.04	Green Island	...	4.57	1.24	25	9	...
Claremont	...	6.30	1.60	11	9	3.80	CENTRAL SUB-DIVISION.						
Albion, St. Ann	...	9.04	3.40	9	14	4.38	Rio Magno	...	9.68	2.50	18	9	...
Averham Park	...	5.36	1.80	9	9	4.73	Headworks, Rio Cobre	...	5.19	1.90	7	9	3.62
Mean	...	6.13	...	...	...	...	Linstead	...	4.83	1.16	23	10	4.43
							Berkshire Hall	...	8.59	1.73	13	13	2.40
							Point Hill	...	5.13	1.24	18	8	6.07
							Bellas Gate	...	4.00	1.09	16	7	...
							Worthy Park	...	...	...	...	...	...
							Croft Hill	...	3.34	1.25	11	12	4.70
							Chapelton	...	6.42	2.20	11	10	3.57
							Danks Works	...	6.36	2.28	11	11	4.69
							Savoy House	...	6.38	2.05	11	13	4.09
							Crooked River	...	5.45	1.60	11	17	...
							Trout Hall	...	7.44	2.00	11	15	...
							Frankfield	...	10.24	3.14	9	12	...
							Mean	...	4.55	...	...	...	...

						APRIL, 1918.				
						Total Fall.	Greatest fall in 24 hours.	Days on which 0.01 or more fell.	Average.	
						Amount	Date.			
						In.	In.			In.
NORTH-EASTERN DIVISION.										
Mauchioneal						10.25	1.77	11	21	6.32
Spring Valley						11.44	2.20	11	19	10.70
Bailh						7.18	2.34	11	17	5.65
Priestman's River						7.79	2.50	11	11	...
Moore Town						9.69	2.00	30	20	9.77
Port Antonio						5.64	2.04	17	16	6.27
Fellowship						7.76	2.69	16	14	9.24
Johnson River Bridge						6.13	2.81	11	19	4.38
Shrewsbury						8.07	4.00	16	11	5.33
Cedar Valley, St. Thos.						5.46	0.50	12	6	3.94
Moy Hall, St. Thos.						...	...	...	...	...
Brooklodge						2.87	0.96	7	9	...
Lennox						...	...	...	...	...
Farm Hill						1.06	0.90	12	2	5.19
Hill Gardens						2.59	0.50	21	11	6.09
Buff Bay						3.36	1.65	16	10	5.73
Belvedere						5.65	1.30	16	12	...
Greenvale, Portland						9.10	2.33	16	10	8.68
Mt. Holstein						4.65	1.12	8	14	6.00
Irish Town						3.61	2.05	21	4	5.11
Rose Hill						10.94	2.38	9	11	...
Hardware Gap						10.10	...	...	...	5.86
Stony Hill Ind. School						4.47	0.66	10	18	5.24
Castleton Gardens						4.92	0.70	30	17	6.80
Lawrence Tavern						7.14	1.50	22	13	4.24
Cedar Valley, Red Hills						8.92	2.06	9	...	...
Zion Hill						...	...	...	...	...
Aqualta Vale						4.56	1.18	8	12	4.95
Water Valley						3.79	0.58	9	10	4.44
Richmond, St. Mary						4.98	1.46	13	10	4.54
Highgate						5.22	2.10	19	11	...
Hampstead, St. Mary						5.15	2.58	9	7	6.18
Guy's Hill						6.23	1.55	25	11	...
Lucky Hill						7.76	3.23	9	10	...
Rio Hoe						7.24	1.92	11	12	4.38
Unity Valley						6.58	2.35	9	13	4.61</

WEST-CENTRAL DIVISION.	APRIL, 1918.					SOUTHERN DIVISION.	APRIL, 1918.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Whitney	...	...	...	...	...	Morant Point L. H.	6.63	2.66	11	17	2.99
Mocho, Clarendon	3.42	1.75	11	5	...	Elliott Hill	7.41	2.52	11	21	...
Spaldings	6.45	2.34	9	15	...	Pleasant Hill	6.75	2.41	11	12	...
Tan-y-bryn	3.40	0.83	9	18	...	East Prospect	5.39	2.40	11	13	5.71
Brokenhurst	2.25	1.75	12	4	5.25	Morant Bay	4.85	2.85	11	8	2.55
Christiana	5.12	1.15	8	14	8.10	Easington	1.39	0.39	23	10	1.73
Chudleigh	3.48	0.79	9	18	5.91	Bull Bay	1.29	0.55	12	3	0.85
Shooter's Hill	2.92	1.07	9	12	5.14	Bellevue	3.21	1.00	21	13	...
Spitzbergen	...	...	...	...	...	Gordon Town	1.48	1.00	28	2	3.32
Kendal, Manchester	3.02	1.70	9	5	7.44	Widcombe	3.05	...	...	12	...
Marshall's Pen	2.28	1.46	9	7	5.90	Hope Gardens	3.21	...	...	...	2.84
Mandeville	3.04	1.37	11	11	5.96	King's House Gardens	2.33	0.94	10	6	2.48
Carlton, Mandeville	3.43	1.56	11	10	5.96	Melrose	1.82	1.07	10	5	...
The Hill	...	...	...	...	...	Halfway Tree	2.15	0.76	8	5	1.63
Fairfield, Manchester	3.07	1.07	9	10	6.46	Lunatic Asylum	3.96	2.20	21	8	1.07
Mile Gully	...	...	...	...	...	Glenmore Road	4.18	2.04	8	9	...
Ulster Spring	15.00	5.00	8	9	6.20	Kingston P. W. Office	3.16	1.25	8	7	1.01
Freeman's Hall	14.42	2.40	28	13	...	Plumb Point L. H.	5.10	1.56	10	6	0.99
Albert Town	10.04	3.00	9	5	6.48	Clifton Pen	3.87	1.95	8	4	...
Lowe River	10.86	3.25	8	9	5.78	Quarantine Station	1.45	0.80	11	2	...
Troy	11.62	2.65	17	13	9.62	Spanish Town	0.75	0.72	10	2	2.30
Windsor Pen, Trel.	8.23	1.65	27	15	6.10	Hog Hole, St. Catherine	3.25	1.25	10	9	2.96
Medina	10.73	1.91	9	10	...	Hartlands	2.17	1.15	10	3	2.25
Balaclava Police Station	18.39	5.20	13	20	9.66	Belmont, Guanaboa Vale	6.85	2.55	9	12	...
Siloah	14.24	3.65	13	18	9.16	Old Harbour	4.80	1.28	21	9	2.87
Appleton Estate	14.23	2.30	13	19	9.67	May Pen	2.02	0.65	16	8	2.92
Maggotty	14.62	3.46	13	14	9.39	Happy Hut	2.00	1.20	9	4	...
Butlers	11.71	2.15	23	14	...	Dunkley's, Vere	3.63	0.91	9	14	2.16
Dromilly Pen	9.88	3.20	8	13	...	Dry River "	2.30	0.70	10	8	3.25
Spring Vale	10.50	3.00	23	10	5.44	Denbigh	...	...	...	...	...
Garland	...	...	...	...	...	Toll Gate	6.64	2.05	11	11	...
Mocho, Catadupa	...	...	...	...	...	Woodleigh	...	...	...	...	...
Springfield, St. Elizabeth	18.89	3.10	23	19	...	New Yarnmouth	3.72	0.83	9	9	2.31
Chesterfield, St. James	20.76	3.51	22	18	...	Exeter, Vere	...	...	...	...	...
Catadupa Rly. Station	...	...	...	...	...	Rhymesbury	...	...	...	...	...
Kempshot	11.25	3.48	13	15	5.54	Milk River	1.02	0.34	10	5	2.25
Cambridge, St. James	10.16	3.55	23	13	...	Clarendon Pk. Ry. St.	...	...	...	...	...
Ducketts	6.93	1.44	22	10	...	Retrieve	4.74	1.32	11	11	...
New Market, Police St.	8.74	1.92	17	20	...	Hog Hole, S. Manch.	5.75	1.54	11	10	...
The Bog, New Market	20.69	4.14	13	16	...	Stone's Hope	6.39	2.09	27	6	4.13
Kew Park	8.58	1.65	22	15	8.27	Newport, Manchester	4.46	1.90	11	11	4.96
Montpelier	8.38	1.60	24	14	...	Great Valley, Man.	3.94	0.97	11	14	4.05
Burnt Ground	7.27	2.75	17	13	5.28	Alligator Pond	...	...	...	...	...
Knockalva	6.48	1.42	8	18	...	Southfield, St. Elizabeth	3.89	1.20	11	9	...
Ramble	12.62	2.25	8	14	...	Lititz	2.46	0.96	11	10	...
Petersville	17.44	3.70	23	21	7.35	Torrington	5.51	1.47	21	9	4.53
Darliston	14.55	2.44	22	24	11.40	Bethlehem, St. Eliz.	8.03	2.30	21	12	6.30
Bluefields	14.68	2.64	13	16	8.00	Santa Cruz	14.84	3.76	28	19	9.34
Whithorn	10.82	3.05	22	19	7.98	Pedro Plains Police St.	4.91	1.43	21	10	2.22
Water Works Pen	12.25	3.25	22	20	...	Mountainside	8.51	1.90	30	15	...
Great Valley, Han.	...	...	...	...	...	Black River	4.50	1.22	21	14	4.18
Fontabelle, Westm.	10.62	4.15	22	14	...	Font Hill	9.90	2.60	13	11	4.40
Belleisle	7.69	2.96	22	15	...	Mount Edgecombe	16.14	5.14	13	19	5.40
Morgan's Bridge	13.20	4.50	22	19	6.14	Sweet River	11.12	3.05	22	15	5.70
King's Vale Police St.	6.51	1.60	20	10	5.90	Windsor, Sav.-la-mar	15.58	3.94	22	15	4.99
						Orchard	13.22	4.12	22	18	...
						Sav.-la-mar	11.80	2.50	22	14	5.29
						Little London	10.22	2.35	22	12	...
						Retreat	10.66	1.85	24	14	5.07
						Negril Point L.H.	6.19	1.80	22	16	3.03
Mean	9.31	...	...	...	...	Mean	5.52	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	APRIL.	
	1918.	Average.
	In.	In.
North-Eastern Division ...	6.13	5.31
Northern " ...	4.55	3.05
West-Central " ...	9.31	7.13
Southern " ...	5.52	3.24
The Island ...	6.38	4.68

SHOCKS OF EARTHQUAKE IN APRIL, 1918.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
	hr. min.		
		No earth quake	this month.

In the West-central division the rains were heavy. 16 to 20 inches falling at several places. Over the rest of the Island the rainfall was about the average.

CORRIGENDA.—W.R. No. 481, Mar. 1918; p. 3. W. C. div.
New Market. For 17.08 read 16.18
p. 4. S. div.
Santa Cruz For 7.17 read 17.17.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

JA



JAMAICA

WEATHER REPORT

FOR THE MONTH OF

MAY, 1918.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky ; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
		in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House	8	29.954	29.921	79.2	80.7	83.3	74.1	9.2	85.5	31	71.5	9	14.0
Kingston	24	29.935	29.899	75.0	80.5	86.3	71.2	15.1	90.6	17	68.6	14	22.0
Negril Point Light House	33	29.940	29.899	73.8	81.2	85.5	70.3	15.2	87.7	17	66.7	5	21.0
Castleton Gardens	496	..	..	69.4	79.1	82.4	68.5	13.9	87	2*	65	14	22
Hope Gardens†	668	29.987	29.937	71.7	80.3	84.7	68.7	16.0	88	31	..	..	..
Bavinton, Stony Hill**	1,349	29.945	29.889	68.9	75.5	79.8	66.2	13.6	84.0	2	64.0	11*	20.0
Stony Hill Indus. School	1,400	..	..	68.2	74.4	78.8	65.8	13.0	85.0	31	64.0	11*	21.0
Kempshot	1,773	29.942	29.909	69.6	72.3	77.5	67.8	9.7	80.8	25	65.7	5	15.1
Hill Gardens	4,900	25.274	25.225	62.7	63.7	67.0	56.0	11.0	71	2*	55	3*	16

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		°		°					m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House	8	71.6	78	71.5	74	10.74	300	NE	13.5	NE	14.0	3.3	2.1	1.1	3.8	1.7	1.0
Kingston	24	70.3	85	71.8	75	3.44	167	NNE	5.0	SE	10.9	2.2	0.8	2.5	5.9	1.2	2.2
Negril Point Light House†	33	68.6	75	70.9	71	8.07	174	NE	8.0	Var.	9.3	2.3	0.4	2.9	3.2	5.7	0.1
Castleton Gardens	496	67.4	93	72.3	79	15.55	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	64.1	75	69.8	71	11.86	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	67.9	93	69.5	80	11.15	..	NNE	1.0	NNE	2.4	3.4	1.2	1.3	6.0	2.4	0.4
Stony Hill Indus. School	1,400	66.1	93	69.1	83	10.32	..	..	..	..	..	..	..	..	..	..	..
Kempshot	1,773	67.3	83	69.8	81	8.20	175	E	7.6	E	4.4	2.0	0.6	2.1	2.4	3.8	2.3
Hill Gardens	4,900	60.3	89	61.3	90	16.33	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
‡ Negril Point Light House. Wind 11 p.m. ENE 7.0
** Bavinton, Stony Hill. Mean Min. temp on grass 63.8
Earth temp 1 ft. below surface 76.2
" 4ft. " " 75.0

THE RAINFALL.

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The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	MAY, 1918.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount	Date.		
	In.	In.			In.
Manchioneal	22.49	6.37	22	25	14.77
Spring Valley	26.84	6.95	22	25	10.67
Bath	16.52	4.70	22	26	12.75
Priestman's River	31.82	7.56	10	20	...
Moore Town	65.46	10.30	12	27	16.95
Port Antonio	27.26	5.93	22	24	16.66
Fellowship	42.61	8.08	22	29	20.85
Johnson River Bridge	12.03	4.62	22	20	9.52
Shrewsbury	24.38	8.09	22	24	11.94
Cedar Valley, St. Thos.	8.48	4.20	21	12	9.33
Brooklodge	8.41	4.34	22	14	...
Farm Hill	17.30	4.90	22	11	6.57
Hill Gardens	16.38	2.98	22	21	10.71
Chepstowe	21.06	3.80	5	19	...
Spring Garden	17.16	5.40	22	22	...
Buff Bay	17.29	3.30	22	22	8.15
Belvedere	15.08	3.80	22	22	...
Greenvale, Portland	23.30	4.95	22	22	8.01
Mt. Holstein	15.31	1.90	22	24	8.14
Irish Town	14.59	2.90	22	14	5.27
Rose Hill	18.35	4.30	22	15	...
Hardware Gap	19.46	...	...	...	12.57
Stony Hill Ind. School	10.82	3.02	22	24	9.73
Castleton Gardens	15.55	3.16	31	21	12.04
Lawrence Tavern	13.09	2.70	22	20	9.12
Cedar Valley, Red Hills	16.40	2.85	22	21	...
Zion Hill	12.40	2.65	22	24	...
Agualta Vale	12.33	2.78	22	21	4.55
Water Valley	10.22	2.45	22	22	7.86
Richmond, St. Mary	9.35	2.93	5	16	7.54
Highgate	9.22	3.40	5	13	...
Hampstead, St. Mary	8.02	1.55	22	20	7.31
Guy's Hill	8.09	1.90	5	14	...
Lucky Hill	8.48	1.35	22	18	...
Rio Hoe	8.24	1.39	22	19	8.48
Unity Valley	11.54	2.75	16	...	9.99
Moneague	13.18	2.05	25	20	8.26
Claremont	6.94	1.50	10	12	7.34
Albion, St. Ann	9.85	1.86	18	20	8.46
Averham Park	8.92	1.87	10	10	8.25
Mean	17.51	...	...	...	...

NORTHERN DIVISION.	MAY, 1918.				
	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			In.
Port Maria	9.30	2.48	22	20	6.61
Ocho Rios	5.20	1.13	22	13	5.20
Bogue, Ocho Rios	7.92	1.95	12	17	5.12
Rockfield	10.41	2.25	7	24	...
Drax Hall	8.94	2.60	12	15	7.10
Liberty Hill	10.01	1.76	18	16	3.21
St. Ann's Bay	9.97	2.20	12	21	5.64
Seville	...	...	...	...	...
Richmond Estate	10.01	1.45	10	22	7.42
Llandovery	8.87	1.48	9	13	7.11
Runaway Bay	4.28	1.08	2	16	...
Brown's Town	7.74	1.12	5	11	7.23
Alexandria	12.15	3.08	18	11	...
Watt Town, St. Ann	13.08	2.20	18	18	...
Home Castle	6.20	1.30	2	12	6.13
Richmond Pen	9.79	1.40	29	15	7.76
Mahogany Hall	...	...	...	...	...
Barnstaple	...	...	...	...	...
Bryan Castle	5.15	1.25	2	8	5.49
Braco	4.45	1.40	2	11	4.90
Arcadia	8.15	2.20	10	10	4.98
Lancaster	6.34	1.65	2	11	5.40
Harmony Hall	5.76	1.50	2	11	4.88
Vale Royal	5.93	1.27	2	12	6.34
Colchis Pen	...	...	...	...	...
Swanswick	...	...	...	...	...
Georgia	...	...	...	...	...
Long Pond	7.68	1.60	29	12	...
Hyde Hall	5.10	1.50	29	4	...
Steelfield	6.22	1.06	2	10	...
Etingdon	3.35	1.15	2	5	...
Lottery	3.40	1.10	2	10	6.35
Falmouth	2.50	0.67	22	12	5.19
Florence Hall	1.82	0.69	22	3	...
Good Hope	9.18	2.62	16	14	...
Unity	...	...	...	...	...
Kent	...	...	...	...	...
Canaan	9.24	2.00	12	14	7.55
Content	5.74	1.08	22	13	...
Guildsbro	11.34	2.30	20	24	8.61
Glasgow	10.05	4.50	12	12	...
Spring Estate	2.65	0.68	12	10	4.96
Montego Bay	5.80	1.28	23	13	7.60
Catherine Hall	5.09	0.89	23	11	7.94
Friendship	5.99	1.30	16	11	...
Retirement	7.22	1.42	16	16	...
King Gate	10.80	5.34	16	8	9.18
Blue Hole	3.74	1.30	30	6	...
Haughton Court	2.00	0.45	22	10	8.03
Lucea	2.87	7.56	22	12	8.09
Green Island	7.54	2.00	30	12	...
CENTRAL SUB-DIVISION.					
Rio Magno	5.99	1.80	3	11	...
Headworks, Rio Cobre	10.66	2.90	22	14	7.71
Linstead	14.34	3.00	19	17	9.64
Berkshire Hall	9.50	2.20	11	16	5.43
Point Hill	16.15	4.15	28	9	12.80
Bellas Gate	4.53	1.80	22	8	...
Worthy Park	...	...	...	...	...
Croft Hill	12.49	3.73	18	15	5.65
Chapelton	10.10	1.75	22	14	8.47
Danks Works	10.03	2.19	18	18	9.22
Savoy House	9.94	1.56	22	17	8.03
Crooked River	10.75	2.62	19	15	...
Trout Hall	12.51	2.21	12	21	...
Frankfield	12.39	2.71	12	11	...
Mean	7.96	...	...	...	...

		MAY, 1918.							MAY, 1918.				
WEST-CENTRAL DIVISION.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	SOUTHERN DIVISION.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
			Amount.	Date.						Amount.	Date.		
	In.	In.				In.		In.	In.				In.
Whitney	...	...	...	...	...	...	Morant Point L. H.	10.74	4.58	22	21	10.76	...
Mocho, Clarendon	11.17	1.50	13	13	12.45	...	Elliott Hill	16.47	4.33	23	28	...	...
Spaldings	12.66	2.75	18	22	...	...	Pleasant Hill	14.10	4.11	22	19	...	...
Tan-y-bryn	14.27	2.54	10	21	...	...	East Prospect	19.62	6.57	22	18	7.74	...
Brokenhurst	10.97	1.70	6	19	10.02	...	Morant Bay	12.17	4.45	22	19	8.00	...
Christiana	15.78	3.75	19	18	11.50	...	Easington	7.59	2.92	22	15	6.33	...
Chudleigh	15.88	3.83	19	21	8.35	...	Bull Bay	3.13	2.20	22	5	4.13	...
Shooter's Hill	11.93	1.98	19	20	6.59	...	Bellevue	12.01	3.60	23	19	...	...
Spitzbergen	...	...	...	...	...	...	Gordon Town	14.32	3.15	22	15	8.23	...
Kendal, Manchester	14.55	2.61	19	14	10.16	...	Widcombe	12.91	2.50	23	19	...	...
Marshall's Pen	11.35	4.28	19	16	10.02	...	Hope Gardens	...	...	...	...	...	...
Mandeville	11.37	1.90	14	24	11.17	...	King's House Gardens	3.40	1.00	14	5	6.38	...
Carlton, Mandeville	10.82	1.40	14	21	11.17	...	Meirose	7.28	2.06	26	17	...	...
The Hill	...	...	...	...	...	...	Halfway Tree	9.41	2.49	22	17	4.87	...
Fairfield, Manchester	12.41	2.97	19	22	7.87	...	Lunatic Asylum	3.55	2.50	22	10	3.57	...
Ulster Spring	26.91	3.00	19	14	11.61	...	Glenmore Road	4.23	2.69	22	14	...	...
Freeman's Hall	17.72	2.30	20	17	...	...	Kingston P. W. Office	3.44	2.61	22	7	4.63	...
Albert Town	20.15	2.00	6*	14	10.55	...	Plumb Point L. H.	5.13	3.20	22	9	4.80	...
Lowe River	26.66	3.14	25	23	8.69	...	Clifton Pen	7.10	3.35	22	11	...	...
Troy	16.06	2.10	16	17	17.69	...	Quarantine Station	4.22	3.10	22	7	...	...
Windsor Pen, Trel.	11.80	2.20	13	15	10.96	...	Spanish Town	9.93	2.67	22	12	5.77	...
Medina	10.94	1.62	19	14	...	...	Hog Hole, St. Catherine	7.42	2.41	22	12	6.79	...
Balaclava Police Station	12.89	2.66	19	19	14.41	...	Hartlands	9.55	3.30	22	8	4.34	...
Siloah	22.50	3.40	6	22	15.02	...	Belmont, Guanaboa Vale	10.55	3.00	22	23	...	...
Appleton Estate	23.56	4.70	6	25	13.02	...	Old Harbour	7.01	2.60	22	13	5.78	...
Maggotty	17.60	2.51	27	18	14.85	...	May Pen	5.40	2.60	22	8	6.84	...
Butlers	15.47	2.10	7	19	...	...	Happy Hut	5.79	2.70	22	7	...	...
Dromilly Pen	11.11	2.25	11	16	...	...	Dunkley's, Vere	8.81	1.70	14	14	4.50	...
Spring Vale	16.63	2.50	11	18	3.57	...	Dry River "	2.67	1.05	16	6	4.11	...
Garland	...	...	...	...	...	...	Denbigh	...	...	...	...	...	...
Mocho, Catadupa	...	...	...	...	...	...	Toll Gate	9.41	1.75	22	11	...	...
Springfield, St. Elizabeth	22.35	4.20	28	20	...	...	Woodleigh	5.85	2.50	21	5	...	...
Chesterfield, St. James	19.83	2.00	11	25	...	...	New Yarmouth	5.19	2.04	22	8	4.86	...
Catadupa Rly. Station	...	...	...	...	...	...	Exeter, Vere	3.75	2.25	23	8	4.94	...
Kempshot	8.20	1.94	16	21	10.37	...	Rhymesbury	...	...	...	...	...	...
Cambridge, St. James	10.68	1.62	31	19	...	...	Milk River	4.14	1.16	22	11	5.84	...
Ducketts	16.64	1.18	26	22	...	...	Clarendon Pk. Ry. St.	9.80	1.60	14	14	5.16	...
New Market, Police St.	14.65	3.34	28	19	...	...	Retrieve	8.51	1.63	22	13	...	...
The Bog, New Market	18.06	3.10	12	25	...	...	Hog Hole, S. Manch.	14.10	3.36	18	11	...	...
Kew Park	...	...	...	...	...	...	Stone's Hope	14.84	4.17	15	12	9.30	...
Montpelier	8.32	1.27	23	17	...	...	Newport, Manchester	9.73	1.60	22	20	8.37	...
Burnt Ground	9.81	1.25	19	22	15.44	...	Great Valley, Man.	8.87	2.02	18	13	6.99	...
Knockalva	11.61	1.48	21	22	...	...	Alligator Pond	5.80	1.69	15	11	5.86	...
Ramble	13.81	3.00	18	11	...	...	Southfield, St. Elizabeth	5.16	1.35	22	14	...	...
Petersville	17.28	2.07	20	22	12.19	...	Lititz	7.04	1.60	15	15	...	...
Darliston	18.48	1.86	10	22	16.91	...	Torrington	12.80	1.72	20	18	6.76	...
Bluefields	11.96	1.54	13	28	11.70	...	Bethlehem, St. Eliz.	16.15	2.17	8	23	7.64	...
Whithorn	13.50	1.80	17	20	14.88	...	Santa Cruz	22.78	3.30	9	25	12.81	...
Water Works Pen	14.12	2.15	15	21	...	...	Pedro Plains Police St.	5.69	1.50	20	12	4.12	...
Great Valley, Han.	8.84	2.00	17	10	14.22	...	Mountainside	13.00	2.25	7	16	...	...
Fontabelle, Westm.	21.71	3.75	17	23	9.36	...	Black River	11.72	2.27	7	23	7.42	...
Belleisle	16.17	2.10	25	23	11.61	...	Font Hill	13.80	3.20	27	18	8.84	...
Morgan's Bridge	24.30	2.20	12	21	12.36	...	Mount Edgecombe	14.13	2.77	16	20	8.23	...
King's Vale Police St.	9.22	1.32	30	18	9.76	...	Sweet River	9.21	2.40	12	18	9.81	...
							Windsor, Sav.-la-mar	8.45	2.12	15	15	...	...
							Orchard	8.08	1.61	15	18	...	...
							Sav.-la-mar	7.43	1.73	12	16	9.29	...
							Little London	9.28	1.70	19	16	...	...
							Retreat	15.19	4.40	11	17	9.09	...
							Negril Point L.H.	8.07	2.35	28	23	5.88	...
Mean	15.50	...	...	...	...	...	Mean	9.26	...	...	...	...	...

* And on 4 other days.

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

SHOCKS OF EARTHQUAKE IN MAY, 1918.

DIVISIONAL AND ISLAND RAINFALL.	MAY.		Date.	Standard Time (Approx.) hr. min.	Inten- sity.	Notes: where felt, etc.
	1918.	Average.				
	In.	In.				
North-Eastern Division	... 17.51	10.82				No earth quake this month.
Northern "	... 7.96	7.07				
West-Central "	... 15.50	12.49				
Southern "	... 9.26	6.94				
The Island	... 12.56	9.33				

The rains were again heavy over the whole island—15 to 25 inches were recorded at many places chiefly in the west-central and north-eastern divisions—unusually heavy rains for the time of year were recorded at Moore Town and Fellowship; 65½ and 42½ inches respectively. The smallest record was 1.82 inches at Florence Hall near Falmouth.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

57.05
JA

No. 484.



JAMAICA

WEATHER REPORT

FOR THE MONTH OF

JUNE, 1918.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky ; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
		in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House	8	29.943	29.917	80.6	82.9	84.6	74.7	9.9	86.5	9*	76.6	11*	13.5
Kingston	24	29.921	29.890	76.5	84.0	87.6	72.8	14.8	92.0	28	69.6	25	22.4
Negril Point Light House	33	29.916	29.896	79.1	83.8	86.7	72.2	14.5	89.2	14	68.2	25	21.0
Castleton Gardens	496	..	..	70.0	82.5	85.7	69.1	16.6	90	8*	66	23	24
Hope Gardens†	668	29.966	29.912	73.0	83.4	88.0	70.0	18.0	92	24*	67	23	25
Bavinton, Stony Hill**	1,349	29.931	29.875	71.0	78.7	82.7	67.5	15.2	88.0	27*	65.5	23	22.5
Stony Hill Indus. School	1,400	..	..	71.0	78.9	81.9	66.8	15.1	89	29	66*	1*	23
Kempshot	1,773	29.923	29.899	71.3	76.1	80.7	69.3	11.4	83.2	27	67.5	17	15.7
Hill Gardens	4,900	25.264	25.222	63.5	65.2	68.9	57.1	11.8	74	29	56	4*	18

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.					Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.					7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		°		°					in.	miles		m.		m.	L.	M.	U.	L
Morant Pt. Light House	8	73.0	78	73.4	73	6.73	293	NE	16.5	ENE	13.8	3.0	1.8	1.4	1.5	2.2	2.1	
Kingston	24	70.6	82	71.5	66	0.84	213	ENE	5.7	SE	15.8	1.6	1.1	2.1	2.7	1.6	3.3	
Negril Point Light House†	33	70.7	74	72.3	69	3.90	227	E	8.1	NE	11.9	2.6	0.5	2.5	3.3	4.4	0.9	
Castleton Gardens	496	68.2	93	73.3	72	9.31	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	..	..	..	..	2.92	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	68.0	90	69.7	73	6.86	..	ENE	1.4	S	3.6	1.8	1.4	1.9	4.8	2.8	0.4	
Stony Hill Indus. School	1,400	67.0	87	69.5	73	6.91	..	..	..	..	..	..	..	..	..	..	..
Kempshot	1,773	74.3	78	68.1	76	6.91	146	ESE	5.2	E	3.6	1.0	0.6	2.2	1.5	3.6	2.8	
Hill Gardens	4,900	60.6	90	62.1	90	3.52	..	..	..	..	..	..	..	..	..	..	..

* and on other days.

† Negril Point Light House.

** Bavinton, Stony Hill.

Wind 11 p.m.

Mean Min. temp on grass

Earth temp 1 ft. below surface

" 4ft. " "

† Hope Gardens. Bar. read at 9 a.m. and 3 p.m.

E

9.0

64.8

78.8

76.4

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending his report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.		JUNE, 1918.					Barnstable Bryan Castle Braco Arcadia Lancaster Harmony Hall Vale Royal Colchis Pen Swanswick Georgia Long Pond Hyde Hall Steelfield Etingdon Lottery Falmouth Florence Hall Good Hope Unity Kent Canaan Content Gulbsbro Glasgow Spring Estate Montego Bay Catherine Hall Friendship Retirement King Gate Blue Hole Haughton Court Lucea Green Island				
		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.					
			Amount	Date.							
	In.	In.			In.						
Manchioneal	13.85	8.88	19	18	10.20	3.20	0.80	13	7	3.68	
Spring Valley	...	...	...	...	...	2.40	0.65	13	7	3.26
Bath	14.27	5.36	19	19	13.29	5.40	1.90	4	7	4.46	
Priestman's River	9.49	2.00	17	11	...	3.88	1.00	19	6	3.54	
Moore Town	13.75	3.00	12	15	25.57	3.02	0.80	19	6	3.03	
Port Antonio	7.69	1.70	13	17	17.96	5.17	1.48	16	7	4.69	
Fellowship	14.25	3.10	13	19	22.43	1.10	0.50	...	3	5.11	
Johnson River Bridge	13.09	5.12	19	19	19.17	...	...	...	...	...
Shrewsbury	10.69	3.07	13	14	12.07	4.94	1.60	18	10	5.22	
Cedar Valley, St. Thos.	6.56	1.10	15	11	19.90	5.54	1.96	18	10	...	
Brooklodge	7.40	2.21	19	12	...	8.30	4.00	18	8	...	
Farm Hill	5.77	2.10	19	4	6.78	6.54	2.38	18	5	...	
Hill Gardens	3.52	1.15	16	8	8.11	6.25	3.50	18	6	...	
Chepstowe	5.35	0.50	11	9	...	3.80	0.85	10	7	4.14	
Spring Garden	4.67	2.25	11	12	...	1.17	0.47	18	4	2.88	
Buff Bay	5.66	2.22	11	9	7.50	1.38	0.72	19	3	2.12	
Greenvale	...	...	...	...	...	9.20	2.50	4	12	...
Belvedere, Portland	2.32	1.06	11	10	...	...	...	...	...	...
Mt. Holstein	4.52	1.59	10	13	8.16	...	...	...	...	...
Irish Town	5.37	1.70	2	7	4.97	5.04	1.52	14	12	...	
Rose Hill	7.79	3.07	16	7	...	3.20	1.04	4	5	...	
Hardware Gap	5.34	...	...	18	7.86	8.38	3.22	15	14	6.68
Stony Hill Ind. School	6.91	1.78	16	16	7.47	3.00	1.00	4	4	...	
Castleton Gardens	9.31	2.60	30	12	9.93	1.84	0.76	4	4	3.53	
Lawrence Tavern	4.18	1.14	11	11	7.48	6.53	2.49	17	11	7.19	
Cedar Valley, Red Hills	3.18	0.82	2	...	...	6.04	2.09	17	10	6.18
Zion Hill	7.02	2.10	1	18	...	7.47	2.06	17	9	...	
Agualta Vale	1.48	0.54	4	7	3.69	8.81	2.71	4	11	...	
Water Valley	2.01	0.48	19	14	5.63	2.72	1.06	19	4	9.92	
Richmond, St. Mary	1.00	0.22	4	11	5.93	4.43	1.31	13	6	...	
Highgate	1.26	0.36	19	7	...	2.85	1.20	16	5	9.13	
Hampstead, St. Mary	1.52	0.33	1	9	4.62	2.39	1.14	16	9	8.76	
Guy's Hill	4.16	1.40	20	7	...	6.88	1.20	14	13	...	
Lucky Hill	1.72	0.58	23	6	...	...	...	...	...	...
Rio Hoe	2.38	1.11	15	9	9.11	...	...	...	...	...
Unity Valley	4.63	1.67	29	8	8.56	3.38	1.12	14	6	...	
Moneague	4.32	1.38	15	11	8.34	4.91	2.98	5	6	6.16	
Claremont	4.50	1.50	29	6	6.43	3.00	1.15	19	8	8.59	
Albion, St. Ann	3.57	1.02	13	9	6.97	5.11	1.35	19	12	8.65	
Averham Park	2.89	1.45	29	5	6.31	4.28	1.26	19	8	11.26	
						Bellas Gate	0.72	5	6	...	
						Worthy Park	...	...	...	...
						Croft Hill	1.95	0.66	19	9	4.92
						Chapelton	4.61	1.60	17	11	7.56
						Danks Works	5.27	1.34	17	9	8.05
						Savoy House	4.28	1.18	2	12	9.18
						Crooked River	5.68	1.20	3	12	..
						Trout Hall	3.02	0.84	18	14	..
						Frankfield	4.85	1.27	18	9	..
Mean	6.41	Mean	3.68

WEST-CENTRAL DIVISION.	JUNE, 1918.					SOUTHERN DIVISION.	JUNE, 1918.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Whitney	...	...	...	...	...	Morant Point L. H.	6.73	2.85	19	17	7.12
Mochó, Clarendon	4.65	1.55	19	7	9.97	Elliott Hill	13.51	6.26	20	24	...
Spaldings	4.16	1.62	9	16	...	Pleasant Hill	12.34	5.39	19	12	...
Tan-y-bryn	3.99	0.88	3	16	...	East Prospect	6.44	2.20	16	11	7.27
Brokenhurst	2.03	1.40	19	13	13.68	Morant Bay	6.45	3.35	19	9	10.19
Christiana	5.04	1.97	9	11	8.16	Easington	4.19	0.95	19	14	10.28
Chudleigh	3.52	1.50	3	14	5.78	Bull Bay	1.79	0.72	2	5	5.41
Shooter's Hill	3.79	0.74	17	17	5.77	Bellevue	4.71	1.43	19	16	...
Spitzbergen	...	...	...	...	...	Gordon Town	5.22	2.66	9	5	5.88
Kendal, Manchester	4.50	0.76	2	12	10.21	Widcombe	3.62	1.80	10	13	...
Marshall's Pen	3.27	0.95	18	9	8.40	Hope Gardens	2.92	...	...	...	...
Mandeville	5.68	1.34	18	17	10.07	King's House Gardens	...	...	...	...	...
Carlton, Mandeville	4.27	1.13	1	13	10.07	Melrose	...	...	...	...	...
The Hill	...	...	...	...	...	Halfway Tree	2.04	1.00	2	7	4.58
Fairfield, Manchester	2.03	0.40	1	14	9.03	Lunatic Asylum	1.01	0.29	9	7	5.90
Ulster Spring	13.94	2.75	10	9	5.59	Glenmore Road	0.99	0.39	19	9	...
Freeman's Hall	7.14	1.93	9	10	...	Kingston P. W. Office	0.84	0.33	19	8	4.38
Albert Town	4.40	2.50	13	2	6.10	Plumb Point L. H.	1.41	0.30	24	10	4.65
Lowe River	3.12	1.28	9	4	5.27	Clifton Pen	2.23	0.85	2	5	...
Troy	10.66	2.30	3	12	7.77	Quarantine Station	2.30	1.89	19	2	...
Windsor Pen, Trel.	4.77	1.40	10	12	9.45	Spanish Town	3.33	0.86	1	6	5.24
Medina	6.65	1.97	19	8	...	Hog Hole, St. Catherine	3.66	1.09	18	7	5.81
Balaclava Police Station	9.86	3.34	26	16	4.98	Harlands	3.45	1.25	2	4	...
Siloah	7.40	2.10	2	14	5.67	Belmont, Guanaboa Vale	3.52	1.50	19	7	...
Appleton Estate	7.42	2.13	2	18	7.20	Old Harbour	1.50	0.55	19	6	7.68
Maggotty	8.38	1.59	2	10	6.35	May Pen	2.44	0.77	19	7	7.66
Butlers	7.67	1.70	2	9	...	Happy Hut	3.35	1.33	20	6	...
Dromilly Pen	5.95	0.90	4	13	...	Dunkley's, Vere	2.74	1.07	18	9	11.05
Spring Vale	5.00	1.06	4	6	11.31	Dry River "	2.41	1.20	18	8	4.83
Garland	...	...	...	...	...	Denbigh	...	...	...	...	...
Mochó, Catadupa	...	...	...	...	...	Toll Gate	6.36	1.30	19	13	...
Springfield, St. Elizabeth	6.31	1.20	2	12	...	Woodleigh	2.35	1.40	19	3	...
Chesterfield, St. James	...	...	...	...	...	New Yarmouth	2.86	1.24	18	7	7.16
Catadupa Rly. Station	...	...	...	...	...	Exeter, Vere	...	...	...	...	...
Kempshot	6.91	1.60	10	14	9.29	Rhymesbury	...	...	...	...	...
Cambridge, St. James	4.14	1.10	14	12	...	Milk River	2.12	1.72	19	5	10.55
Ducketts	...	...	...	...	...	Clarendon Pk. Ry. St.	4.44	1.50	19	11	4.80
New Market, Police St.	6.61	1.21	26	13	...	Retrieve	2.63	0.72	19	8	...
The Bog, New Market	6.91	2.08	2	15	...	Hog Hole, S. Manch.	5.08	1.38	18	8	...
Kew Park	...	...	...	...	...	Stone's Hope	4.69	1.38	18	8	10.18
Montpelier	4.26	1.27	17	12	...	Newport, Manchester	4.02	1.30	18	11	10.62
Burnt Ground	...	...	...	...	...	Great Valley, Man.	3.49	1.05	18	8	8.10
Knockalva	7.14	2.69	9	16	...	Alligator Pond	2.91	1.10	18	6	6.00
Ramble	...	...	...	...	...	Southfield, St. Elizabeth	4.76	1.50	5	7	...
Petersville	8.26	1.68	3	15	8.54	Lititz	2.38	0.76	...	7	...
Darliston	11.73	2.03	29	20	...	Torrington	2.23	0.94	17	4	4.41
Bluefields	5.62	0.87	3	12	10.85	Bethlehem, St. Eliz.	3.20	1.30	2	9	5.26
Whithorn	9.08	1.70	6	18	9.58	Santa Cruz	10.03	2.25	3	15	6.06
Water Works Pen	7.85	1.50	6	22	...	Pedro Plains Police St.	1.36	0.50	19	5	...
Great Valley, Han.	...	...	...	...	...	Mountainside	...	...	...	...	...
Fontabelle, Westm.	9.18	2.73	15	18	11.20	Black River	...	...	...	...	...
Belleisle	...	...	...	...	...	Font Hill	...	...	...	...	...
Morgan's Bridge	13.33	2.60	6	16	10.61	Mount Edgecombe	4.20	1.03	16	13	6.82
King's Vale Police St.	11.55	2.20	29	15	11.37	Sweet River	5.30	1.56	6	18	7.37
						Windsor, Sav.-la-mar	2.96	0.65	14	13	6.72
						Orchard	5.27	0.93	6	15	...
						Sav.-la-mar	3.01	1.02	6	13	6.64
						Little London	2.96	0.80	11	7	...
						Retreat	4.43	1.10	16	12	7.95
						Negril Point L.H.	3.90	1.06	16	14	6.26
Mean	6.58	...	...	...	...	Mean	3.56	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

SHOCKS OF EARTHQUAKE IN JUNE, 1918.

DIVISIONAL AND ISLAND RAINFALL.	JUNE.		Date.	Standard Time (Approx.)	Inten- sity.	Notes: where felt, etc.
	1918.	Average.				
	In.	In.				
North-Eastern Division	6.41	10.75	8	hr. min. 10 10 p.m.	I	Kingston; NNW. and SSE. 017 duration 2 secs.
Northern "	3.68	5.74			I	Mt. Holstein; NW. '005 and NE. '005.
West-Central "	6.58	9.48			I	Unity Valley.
Southern "	3.56	6.93				
The Island	5.06	8.25				

The rainfall for June was therefore below the average: at many places it was much below the average. The heaviest rainfall was 14 inches at Bath and Fellowship; and the smallest was 1 inch near Kingston.

THE NEW STAR IN AQUILA. The increase in brilliancy was most remarkable, and on the night of June 9th it was almost as bright as Sirius, when it was of course seen by a large number of observers in the United States, and by Prof. W. H. Pickering at Mandeville in Jamaica, who sent a notice to the *Gleaner* the following morning.

According to a bulletin from the Harvard College Observatory, for many years past the star has been of the 11th magnitude, varying at times half a magnitude; and on June 3rd it was of about normal magnitude according to the automatic photographic plates which take in every part of the visible heavens every clear night until cut off automatically by dawn. June 4th, 5th and 6th were cloudy. On June 7th it was of the 6th magnitude. On June 8th it was seen by Mr. W. H. Cudworth to be of the 1st magnitude or a little brighter, and he at once telephoned to Harvard, when visual observations were made, and plates examined.

Prof. W. H. Pickering has sent me the following valuable notes:—

"The *Nova* reached its maximum brilliancy June 9th shortly after midnight, the night it was discovered here. It was then nearly as bright as Sirius. It faded rather unusually rapidly, indicating that it was both smaller and nearer than most *novas*. In former years it was of the 11th magnitude. At maximum it was 160,000 times as bright. The cause of the explosion was probably a collision, presumably with a nebula. Before the explosion but after the collision, it was very bright and very blue. Since the explosion it is extremely red, due to the light of gigantic flames of hydrogen gas, millions of miles in extent. As it fades it fluctuates in brightness. July 6th it was of the 3rd magnitude, but it has been as low as the 4th.

SQUALL moving along the South Coast:

On June 12th a squall passed over the Morant Point Light House at 5.50 p.m. with a wind velocity as high as 50 miles per hour. It reached Kingston at 6.15 p.m. with a maximum velocity of 48 miles per hour from the SE. And it reached the Negril Point Light House at 7.30 p.m. when the maximum velocity was reduced to 35 miles per hour, again from the SE.

Consequently while the direction of the wind was always SE, the squall moved from Morant to Kingston with a velocity of over 100 miles an hour, and from Kingston to Negril with a velocity of over 80 miles an hour. And while its course along the south side of Jamaica was about WNW, it did not extend far to the north of its course; it was not felt at Kempshot at all, about 15 miles north of its course.

STORM at Grand Cayman. The weather at Kempshot June 17th and 18th was dull and heavy; the usual winds had ceased; there was some rain and a cloudy sky. The bar. was about a tenth of an inch below the mean, and there was no thunder and lightning. It was evident that a small depression was generating over the west end of the Island.

On the 19th the weather was the same, excepting the wind which commenced to blow from the S; this showed that the depression was moving westward.

On the 20th the Island of Grand Cayman was struck by a storm of some severity and a good deal of damage was done.

WHIRLWIND in St. Elizabeth. On the 25th a rather severe whirlwind was experienced between Goshen and Longhill; and I am indebted to Mr. R. B. Lynch, who was at Longhill at the time for the following notes:

The afternoon was warm; wind SE; rain clouds gathered to the north, and began to move towards Longhill. At 4.46 p.m. sound was heard up in the air and pieces of sticks began to fall; this continued until about 5 p.m. when the whirlwind passed, uprooting large breadfruit and mango trees, and levelling everything in its path, which was not more than 75 yards wide. Going over a pond it sucked the water up to a height above the bamboos surrounding it.

It seems to have started at Peru, passed over Goshen where it hurt some men, and disappeared after passing over the greater part of Longhill property; so that its course was not more than 8 miles or so.

CHAPTERS IN THE WEATHER.

According to Prof. H. H. Turner of Oxford there is a series of dates at each of which new "Chapters" in the history of the European weather are opened; and these "discontinuities" are discussed by him in the Quarterly Journals of the R. Met. Soc. between October, 1915 and April, 1918.

In the first paper he gives the following dates since 1875:—

No.	Chapters.
11	May 1875 to Aug. 1882
12	Sept. 1882 to May 1889
13	June 1889 to Feb. 1895
14	Mar. 1895 to July 1900
15	Aug. 1900 to Feb. 1906
16	Mar. 1906 to Aug. 1912.

Prof. Turner then calls attention to the circumstance that the weather in chapters having odd numbers is different to the weather in chapters having even numbers, and gives as an example the rainfall at Greenwich in the chapters between 1818 and 1906:—

GREENWICH RAINFALL.

EXCESS OF MONTHLY MEANS FOR "EVEN" OVER "ODD" CHAPTERS.

	in.		in.
Nov. +	.04	May —	.37
Dec. +	.24	June —	.37
Jan. —	.11	July —	.52
Feb. +	.12	Aug. —	.57
Mar. +	.04	Sept. +	.30
Apr. +	.05	Oct. —	.32
Total Excess	+ .38	Total Excess	— 1.85

If we now form a similar table for Jamaica * for the chapters between 1875 and 1912, we have:—

JAMAICA RAINFALL.

EXCESS OF MONTHLY MEANS FOR "EVEN" OVER "ODD" CHAPTERS.

	in.		in.
Sept. +	0.80	Mar. —	0.71
Oct. +	.53	Apr. —	.04
Nov. +	.39	May —	1.00
Dec. —	.30	June —	.57
Jan. +	.04	July —	.44
Feb. +	0.06	Aug. —	.21
Total excess	+ 1.52	Total excess	— 2.97

It will be noticed that there is great similarity between the results for Greenwich and Jamaica; for Greenwich the mean yearly excess is -1.47 ; for Jamaica, -1.45 ; and the division of the year into two parts of six months each is nearly the same for both places.

Now the length of these chapters is about $6\frac{1}{2}$ years, so that it appears that the European period of $6\frac{1}{2}$ years affects Jamaica; but the effect is so small that it is interesting only from a scientific point of view.

Take for instance our $5\frac{1}{2}$ year period shown by a drought lasting for about year following each Solar max. or min. by about a year or two:—

Solar Cycle.	JAMAICA. Drought or Min.	Rainfall.
		in.
1870 Max.	1872	45.18
1879 Min.	1880	55.44
1884 Max.	1885	59.86
1889 Min.	1890	64.42
1894 Max.	1896	68.61
1902 Min.	1903	68.38
1906 Max.	1907	52.61
1913 Min.	1914	57.36
		58.98

And as the average rainfall for 40 years is 71.77 , the periodic droughts fall below the mean as much as 12.79 inches.

This period of 5.6 years is partly confirmed by Jamaica history; and is of real practical value.

*The Island rainfall is deduced from about 120 to 180 gauges.

We cannot easily apply Prof. Turner's theory to any other meteorological element in Jamaica, because the registration of the rainfall was alone undisturbed when the Weather Service was disestablished between 1899 and 1907 or 8; but Prof. Turner calls attention to the connection between the Weather Chapters and the small movements of the Earth's axis, and as such movements might easily affect earthquakes, and as the register of earthquakes in Jamaica was not interrupted, it may be as well to give the following list:—

Chapters.	Shocks Recorded.	
<u>No.</u>		<u>No.</u>
12	1882 to 1889 inclusive	71
13	1889 to 1895 inclusive	61
14	1895 to 1900 inclusive	42
15	1900 to 1906 inclusive	35
16	1906 to 1912 inclusive	409

And it will be noticed that the number of shocks gradually decreased between 1882 and 1906; and then there was a very great increase commencing with the great earthquake of Jan. 14th, 1907.

And again the maxima of earthquake shocks between 1882 and 1907 will be found to closely follow the Max. and Min. of the Solar Cycle as in the case of the rainfall minima. It may be, however, as well to remark that there is no connection between rainfall minima and earthquake maxima, the former is sometimes a year before the latter, sometimes a year later, and sometimes they coincide.

MAXWELL HALL,
Govt. Meteorologist.

Montego Bay P.O.

DEC 18 1918



JAMAICA

WEATHER REPORT

FOR THE MONTH OF

JULY, 1918.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part racto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
		in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House	8	29.977	29.952	81.5	84.4	6.0	79.0	7.0	87.0	16*	73.0	7	14.0
Kingston	24	29.951	29.911	77.3	86.8	9.0	73.5	16.5	92.7	11	70.6	9	22.1
Negril Point Light House	33	29.956	29.927	78.7	83.2	88.1	72.6	15.5	90.5	25	70.4	22	20.1
Castleton Gardens	496	..	..	70.0	86.2	89.7	69.2	20.5	93	5*	65	24	28
Hope Gardens†	668	29.991	29.947	74.6	87.5	91.5	70.4	21.1	95	16*	69	2*	26
Bavinton, Stony Hill**	1,349	29.926	29.895	72.1	82.8	87.2	68.3	18.9	91.0	8*	66.0	24	25.0
Stony Hill Indus. School	1,400	..	..	71.9	82.7	86.1	67.8	18.3	92	8	66	1*	26
Kempshot	1,773	29.968	29.932	72.0	76.4	81.4	70.4	11.0	84.0	16	68.9	7	15.1
Hill Gardens	4,900	25.283	25.267	65.7	69.0	72.8	59.6	13.2	76	30	57	1*	19

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		°		°					m.		m.	L.	M.	U.	L	M.	U
Morant Pt. Light House	8	74.0	78	73.8	71	2.02	363	ENE	19	ENE	18	1.3	2.5	1.2	0.8	1.9	1.3
Kingston	24	69.7	78	71.7	61	0.24	250	NE	5.5	SE	18.9	0.3	0.8	1.8	0.6	1.5	3.7
Negril Point Light House†	33	69.9	74	73.0	72	6.78	181	NE	7.3	Var.	9.3	0.3	0.1	4.7	2.5	5.4	0.1
Castleton Gardens	496	65.5	87	72.1	63	2.43	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	65.6	73	68.5	53	0.77	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	66.9	84	68.8	63	2.03	..	NNE	1.1	NW	4.0	1.6	0.6	1.3	2.5	2.6	1.3
Stony Hill Indus. School	1,400	66.3	83	68.1	61	1.41	..	..	..	..	..	..	..	..	..	..	..
Kempshot	1,773	64.6	78	68.4	76	5.05	162	E	7.8	ENE	4.4	0.9	0.2	2.1	1.5	4.7	1.9
Hill Gardens	4,900	62.4	87	58.4	68	1.46	..	..	..	..	..	..	..	..	..	..	..

* and on other days.

† Negril Point Light House.

** Bavinton, Stony Hill.

Wind 11 p.m.

Mean Min. temp on grass

Earth temp 1 ft. below surface

" 4ft " " "

† Hope Gardens.

Bar. read at 9 a.m. and 3 p.m.

ENE

6.6

64.4

80.5

78.3

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending his report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	JULY, 1918.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			In.
Manchioneal	5.90	1.28	6	18	6.46
Spring Valley	6.26	1.30	6	6	9.22
Bath	7.83	1.05	13	21	9.66
Priestman's River	5.39	1.58	6	6	...
Moore Town	11.71	2.00	18	17	20.23
Port Antonio	9.06	3.22	6	15	11.60
Fellowship	9.22	2.06	14	18	16.64
Johnson River Bridge	6.05	1.03	6	17	7.71
Shrewsbury	8.81	3.62	6	16	9.46
Cedar Valley, St. Thos.	3.36	1.00	14	5	4.85
Brooklodge	2.30	0.62	18	7	...
Farm Hill	1.80	0.85	13	3	3.34
Hill Gardens	1.46	0.53	22	5	3.76
Chepstowe	...	...	...	...	...
Spring Garden	...	...	...	...	...
Buff Bay	5.79	2.50	6	17	7.37
Greenvale	3.29	1.51	6	7	2.61
Belvedere, Portland	4.62	2.60	6	9	...
Mt. Holstein	2.54	1.02	6	8	6.95
Irish Town	0.00	...	...	...	1.39
Rose Hill	4.27	1.66	24	3	...
Hardware Gap	2.53	...	...	...	4.27
Stony Hill Ind. School	1.41	0.34	13	8	5.39
Castleton Gardens	2.43	1.30	31	6	6.16
Lawrence Tavern	2.98	0.75	11	7	5.43
Cedar Valley, Red Hills	1.05	0.45	21	5	...
Zion Hill	...	...	...	...	...
Agualta Vale	2.71	1.64	6	6	3.20
Water Valley	2.33	1.25	6	7	3.78
Richmond, St. Mary	1.41	0.73	6	7	3.68
Highgate	2.63	1.21	6	5	...
Hampstead, St. Mary	2.52	1.17	6	6	3.08
Guy's Hill	4.55	1.80	13	9	...
Lucky Hill	...	...	...	...	...
Rio Hoe	3.00	1.69	14	16	4.29
Unity Valley	2.44	0.67	12	8	5.92
Moneague	0.53	0.27	6	5	4.73
Claremont	2.28	1.48	14	3	3.43
Albion, St. Ann	2.92	1.10	3	11	4.24
Averham Park	1.90	0.80	14	4	3.38
Mean	3.95	...	...	...	...

JULY, 1918.

NORTHERN DIVISION.

	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			In.
Port Maria	3.05	0.85	19	8	4.19
Ocho Rios	2.43	0.73	21	6	2.34
Bogue, Ocho Rios	...	...	...	...	...
Rockfield	3.79	1.58	5	7	...
Drax Hall	1.79	0.70	16	5	...
Liberty Hill	3.20	1.50	14	6	1.76
St. Ann's Bay	3.05	1.90	14	6	2.96
Seville	2.84	1.70	14	6	2.31
Richmond Estate	...	...	...	...	...
Llandoverly	1.72	0.72	14	3	2.03
Runaway Bay	0.26	0.18	14	2	...
Brown's Town	1.33	0.40	21	4	2.68
Alexandria	1.37	0.38	31	5	...
Watt Town, St. Ann	1.67	0.77	10	5	...
Home Castle	1.43	0.90	13	4	2.16
Richmond Pen	2.13	0.85	10	5	2.90
Mahogany Hall	...	...	...	...	...
Barnstable	...	...	...	...	...
Bryan Castle	1.75	1.25	13	3	1.81
Braco	1.90	1.15	13	4	1.69
Arcadia	3.67	2.20	13	5	2.00
Lancaster	1.35	0.70	13	5	1.99
Harmony Hall	1.12	0.49	13	5	1.56
Vale Royal	1.43	1.03	13	2	2.87
Colchis Pen	...	...	...	...	...
Swanswick	...	...	...	...	...
Georgia	1.55	0.90	13	3	...
Long Pond	2.01	1.18	13	4	...
Hyde Hall	0.95	0.75	13	2	...
Steelfield	1.44	1.23	13	3	...
Etingdon	0.80	0.60	13	2	...
Lottery	0.85	0.65	13	2	2.33
Falmouth	0.37	0.22	30	3	1.64
Florence Hall	...	...	...	...	...
Good Hope	4.35	1.80	12	7	...
Unity	...	...	...	...	...
Kent	...	...	...	...	...
Canaan	4.01	2.12	13	9	4.18
Content	0.85	0.64	13	2	...
Guilsbro	5.75	3.17	13	17	4.55
Glasgow	2.60	1.50	13	4	...
Spring Estate	0.78	0.53	13	2	2.28
Montego Bay	1.26	0.67	14	6	3.41
Catherine Hall	0.20	0.11	7	2	4.08
Friendship	3.14	1.83	13	7	...
Retirement	3.02	1.10	11	11	...
King Gate	0.51	0.44	13	2	5.59
Blue Hole	1.73	0.56	25	5	...
Haughton Court	3.43	0.80	30	8	5.04
Lucea	2.69	0.47	14	11	5.50
Green Island	12.01	1.80	25	15	...
Mean	2.38	...	...	...	...

CENTRAL SUB-DIVISION.

Rio Magno	2.60	1.20	13	3	...
Headworks, Rio Cobre	...	...	...	...	...
Linstead	7.69	1.67	21	15	5.93
Berkshire Hall	3.39	1.61	31	10	4.65
Point Hill	2.49	0.70	31	7	6.57
Bellas Gate	0.13	0.13	31	1	...
Worthy Park	...	...	...	...	...
Croft Hill	3.01	1.10	21	7	2.86
Chapelton	2.39	1.14	21	7	3.65
Danks Works	2.32	0.78	21	9	3.48
Savoy House	2.56	0.65	21	10	3.15
Crooked River	1.76	0.53	4	8	...
Trout Hall	1.56	0.61	4	5	...
Frankfield	2.20	0.92	30	5	...

WEST-CENTRAL DIVISION.	JULY, 1918.					SOUTHERN DIVISION.	JULY, 1918.					
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	
		Amount.	Date.					Amount.	Date.			
	In.	In.			In.		In.			In.		
Whitney	...	...	...	...	...	Morant Point L. H.	...	2.02	0.99	6	15	3.23
Mocho, Clarendon	1.89	0.75	22	4	...	Elliott Hill	...	5.14	1.83	7	19	...
Spaldings	3.90	1.42	29	18	...	Pleasant Hill	...	5.32	2.19	6	11	...
Tan-y-bryn	4.78	1.03	2	15	...	East Prospect	...	3.35	1.05	6	14	4.08
Brokenhurst	0.88	0.44	22	3	6.00	Morant Bay	...	5.14	1.12	6	14	5.80
Christiana	3.07	1.50	29	16	4.37	Easington	...	3.26	0.65	6	11	6.22
Chudleigh	2.31	0.60	29	14	4.28	Bull Bay	...	0.00	...	...	...	2.46
Shooter's Hill	5.09	1.25	3	15	5.41	Bellevue	...	1.24	0.27	18	9	...
Spitzbergen	...	...	...	...	...	Gordon Town	...	0.35	0.35	16	1	2.62
Kendal, Manchester	6.65	2.65	22	8	5.45	Widcombe	...	0.13	...	...	2	...
Marshall's Pen	1.61	0.98	31	5	4.94	Hope Gardens	...	0.77	...	...	...	2.72
Mandeville	2.25	0.48	21	9	5.91	King's House Gardens	...	...	...	...	...	...
Carlton, Mandeville	1.57	0.35	21	7	5.91	Melrose	...	0.32	0.18	21	4	...
The Hill	...	...	...	...	...	Halfway Tree	...	0.11	0.11	18	1	1.85
Fairfield, Manchester	0.46	0.84	30	7	3.05	Lunatic Asylum	...	0.51	0.24	6	3	1.51
Ulster Spring	2.50	0.85	12	4	4.45	Glenmore Road	...	0.58	0.18	6	5	...
Freeman's Hall	...	...	...	...	...	Kingston P. W. Office	...	0.24	0.88	21	4	1.81
Albert Town	1.75	0.60	12	3	5.00	Plumb Point L. H.	...	1.31	0.95	6	4	1.94
Lowe River	3.70	1.40	7	5	3.12	Clifton Pen	...	0.00	...	...	...	...
Troy	6.41	1.90	29	10	7.11	Quarantine Station	...	0.15	0.15	6	1	...
Windsor Pen, Trel.	6.95	2.06	21	14	6.65	Spanish Town	...	0.04	0.04	5	1	2.48
Medina	1.46	0.85	3	4	...	Hog Hole, St. Catherine	...	...	...	...	...	...
Balaclava Police Station	2.31	0.80	28	8	4.71	Hartlands	...	0.00	...	...	...	...
Siloah	6.40	2.00	12	9	6.55	Belmont, Guanaboa Vale	...	0.21	0.08	11	3	...
Appleton Estate	6.41	1.24	2	12	7.24	Old Harbour	...	0.00	...	...	...	2.57
Maggotty	8.45	1.51	12	12	8.15	May Pen	...	0.25	0.12	22	3	3.72
Butlers	8.65	2.45	17	11	...	Happy Hut	...	0.44	0.44	22	...	...
Dromilly Pen	...	...	...	...	...	Dunkley's, Vere	...	0.06	0.06	23	1	2.32
Spring Vale	7.68	2.95	13	9	8.33	Dry River "	...	0.02	0.02	22	1	1.64
Garland	...	...	...	...	...	Denbigh	...	...	...	...	...	...
Mocho, Catadupa	...	...	...	...	...	Toll Gate	...	1.66	1.10	31	3	...
Springfield, St. Elizabeth	9.86	2.10	21	16	...	Woodleigh	...	...	...	...	...	...
Chesterfield, St. James	...	...	...	...	...	New Yarmouth	...	0.00	...	...	...	2.42
Catadupa Rly. Station	...	...	...	...	...	Exeter, Vere	...	0.05	...	15	1	...
Kempshot	5.05	2.03	3	11	6.21	Rhymesbury	...	...	...	...	...	...
Cambridge, St. James	11.93	1.84	2	19	...	Milk River	...	...	...	...	...	...
Ducketts	...	...	...	...	...	Clarendon Pk. Ry. St.	...	0.37	0.30	27	2	2.39
New Market, Police St.	7.72	1.40	21	12	...	Retrieve	...	0.79	0.50	22	3	...
The Bog, New Market	10.17	2.05	29	18	...	Hog Hole, S. Manch.	...	1.08	0.68	23	2	...
Kew Park	7.96	1.91	7	15	...	Stone's Hope	...	0.86	0.66	17	3	4.30
Montpelier	3.73	1.16	13	11	...	Newport, Manchester	...	...	...	...	...	...
Burnt Ground	4.68	1.15	11	16	8.74	Great Valley, Man.	...	0.63	0.61	22	2	3.27
Knockalva	7.73	2.08	23	18	...	Alligator Pond	...	0.47	0.47	22	1	2.43
Ramble	...	...	...	...	...	Southfield, St. Elizabeth	...	0.77	0.28	28	5	...
Petersville	11.47	1.79	12	19	7.17	Lititz	...	0.61	0.30	31	4	...
Darliston	9.39	1.30	3	23	11.87	Torrington	...	0.30	0.30	28	1	2.64
Bluefields	6.40	1.03	18	11	9.52	Bethlehem, St. Eliz.	...	1.04	0.72	28	2	3.04
Whithorn	8.36	1.87	3	17	10.73	Santa Cruz	...	1.97	1.48	28	4	5.27
Water Works Pen	9.65	2.95	2	17	...	Pedro Plains Police St.	...	0.16	0.1	28	1	1.48
Great Valley, Han.	...	...	...	...	...	Mountainside	...	...	...	...	...	...
Fontabelle, Westm.	16.27	2.54	13	19	8.97	Black River	...	3.28	0.86	17	10	4.82
Belleisle	...	...	...	...	...	Font Hill	...	4.90	1.90	31	8	5.73
Morgan's Bridge	14.77	2.65	14	14	11.61	Mount Edgecombe	...	7.77	1.91	6	19	6.93
King's Vale Police St.	10.54	1.76	28	21	10.74	Sweet River	...	6.68	1.30	31	16	7.52
						Windsor, Sav.-la-mar	...	6.41	2.40	31	13	8.91
						Orchard	...	8.20	1.29	31	16	...
						Sav.-la-mar	...	5.61	1.82	31	18	5.84
						Little London	...	10.64	1.76	17	16	...
						Retreat	...	9.70	2.25	15	13	7.65
						Negril Point L.H.	...	6.78	2.02	29	15	5.90
Mean	5.83	...	...	...	...	Mean	...	2.25	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

SHOCKS OF EARTHQUAKE IN JULY, 1918.

DIVISIONAL AND ISLAND RAINFALL.	JULY.		Date.	Standard Time (Approx.) hr. min.	Inten- sity.	Notes: where felt, etc.
	1918.	Average.				
	In.	In.				
North-Eastern Division ...	3.95	6.41				No earthquake this month.
Northern " ...	2.38	3.21				
West-Central " ...	5.83	7.85				
Southern " ...	2.25	3.59				
The Island ...	3.60	5.26				

The rainfall was the average at the extreme north-eastern and western ends of the Island, and in parts of the West-central Division. At other places, particularly along the south coast, very little or no rain was recorded.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

DEC 16 1918

No. 486.



JAMAICA

W E A T H E R R E P O R T

FOR THE MONTH OF

AUGUST, 1918.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part racto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range.
		ft.	in.	in.	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.971	29.945	81.9	85.2	86.8	80.3	6.5	88.5	2*	73.5	16	15.0
Kingston ..	24	29.949	29.900	77.1	86.4	90.1	73.6	16.5	94.2	2*	69.8	5	24.4
Negril Point Light House ..	33	29.951	29.918	78.9	85.0	88.2	72.9	15.3	91.9	28	69.9	31	21.2
Castleton Gardens ..	496	..	..	69.6	85.6	89.3	68.8	20.5	93	27*	66	17*	27
Hope Gardens† ..	668	29.964	29.899	74.5	87.0	91.7	70.6	21.1	96	28	66	6	30
Bavinton, Stony Hill** ..	1,349	29.957	29.903	72.7	82.2	86.2	68.9	17.0	90.0	18*	66.5	1*	23.5
Stony Hill Indus. School ..	1,400	..	..	72.1	82.5	85.7	68.2	17.5	91	28	66	5*	25.0
Kempshot ..	1,773	29.959	29.929	72.3	76.6	81.4	70.5	10.9	84.9	20	67.2	4	17.7
Hill Gardens ..	4,900	25.289	25.265	64.6	67.7	71.4	59.0	12.4	77	2	56	3*	21

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.					7 a.m.	3 p.m.			7 a.m.	3 p.m.				
		ft.	°	°				m.	m.			L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	8	74.5	78	74.7	71	4.36	289	NE	13.4	NE	13.6	1.3	1.3	1.6	1.3	0.8	1.8
Kingston ..	24	70.4	80	72.7	65	2.87	220	NNE	4.6	SE	17.4	0.4	1.1	3.0	2.5	1.3	2.4
Negril Point Light House† ..	33	71.4	78	73.9	70	7.51	190	ENE	7.2	S	10.3	0.6	0.4	4.3	0.9	6.1	0.9
Castleton Gardens ..	496	67.6	93	74.0	67	7.00	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	64.8	71	70.2	57	3.41	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill ..	1,349	66.6	81	69.8	66	6.04	..	NE	1.5	NNE	3.8	1.0	0.7	2.8	3.0	2.8	1.6
Stony Hill Indus. School ..	1,400	66.2	82	69.5	65	6.55	..	..	..	..	..	..	..	..	..	..	..
Kempshot ..	1,773	64.8	78	68.3	76	14.13	168	ESE	5.4	E	3.8	1.5	0.1	2.1	1.5	2.0	2.9
Hill Gardens ..	4,900	61.1	87	63.9	87	9.49	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
 ‡ Negril Point Light House. Wind 11 p.m. NE 6.8
 ** Bavinton, Stony Hill. Mean Min. temp on grass 64.8
 Earth temp 1 ft. below surface 80.6
 " 4ft. " " 78.9

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending his report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

AUG., 1918.						AUG. 1918.				
NORTH-EASTERN DIVISION.						Total fall.	Greatest fall in 24 hours.			
							Amount.	Date.	Days on which 0.01 or more fell.	Average.
						In.	In.			In.
Manchioneal	...	4.82	2.55	3	4	7.17				
Spring Valley	...	4.88	4.15	3	5	10.85				
Bath	...	7.90	4.79	3	9	10.01				
Priestman's River	...	4.15	3.40	3	3	...				
Moore Town	...	12.17	5.20	2	5	15.54				
Port Antonio	...	15.30	10.93	3	10	10.76				
Fellowship	...	12.34	9.54	3	14	14.28				
Johnson River Bridge	...	5.50	2.50	3	9	10.02				
Shrewsbury	...	...	...	...	...	...
Cedar Valley, St. Thos.	...	5.75	4.85	3	3	9.76				
Brooklodge	...	7.68	6.20	3	4	...				
Farm Hill	...	11.77	9.10	3	5	5.83				
Hill Gardens	...	9.49	4.53	3	6	7.92				
Chepstowe	...	...	...	...	...	...
Spring Garden	...	...	...	...	...	...
Buff Bay	...	6.01	2.63	3	7	5.70				
Greenvale	...	10.65	3.56	3	7	5.04				
Belvedere, Portland	...	6.57	3.57	3	7	...				
Mt. Holstein	...	9.55	2.16	3	9	6.69				
Irish Town	...	5.20	3.95	4	3	6.00				
Rose Hill	...	14.77	9.69	3	3	...				
Hardware Gap	...	8.69	...	...	...	6.73				
Stony Hill Ind. School	...	6.55	2.30	21	10	9.44				
Castleton Gardens	...	7.00	2.97	31	10	10.03				
Lawrence Tavern	...	1.47	0.66	2	5	8.58				
Cedar Valley, Red Hills	...	...	...	...	...	...
Zion Hill	...	4.43	1.50	3	5	...				
Agualta Vale	...	5.09	3.04	3	7	3.38				
Water Valley	...	6.44	2.90	3	8	4.34				
Richmond, St. Mary	...	4.02	2.55	3	8	4.97				
Highgate	...	5.50	3.68	3	7	...				
Hampstead, St. Mary	...	4.86	2.33	3	5	4.86				
Guy's Hill	...	4.97	2.00	3	5	...				
Lucky Hill	...	6.63	1.72	3	7	...				
Rio Hoe	...	5.49	2.17	3	8	6.27				
Unity Valley	...	4.56	1.47	3	6	6.49				
Moneague	...	7.32	4.52	3	7	6.03				
Claremont	...	6.60	2.00	3	7	5.53				
Albion, St. Ann	...	5.87	2.76	3	7	6.10				
Averham Park	...	...	...	...	...	...
Mean	...	7.23	...	...	...	...
						NORTHERN DIVISION				
						Total fall.	Greatest fall in 24 hours.			
						In.	In.			In.
Port Maria	...	3.97	1.92	3	7	4.72				
Ocho Rios	...	3.60	2.10	3	5	2.72				
Bogue, Ocho Rios	...	...	...	...	...	...
Rockfield	...	...	...	...	...	...
Drax Hall	...	2.53	1.50	3	4	3.59				
Liberty Hill	...	3.00	1.53	14	6	2.82				
St. Ann's Bay	...	3.38	2.03	3	8	2.65				
Seville	...	3.25	2.50	3	4	3.55				
Richmond Estate	...	2.61	1.59	3	5	3.36				
Llandovery	...	3.15	3.15	3	1	2.86				
Runaway Bay	...	1.82	0.68	3	4	...				
Brown's Town	...	8.06	2.48	3	8	3.98				
Alexandria	...	4.68	3.50	3	7	...				
Watt Town, St. Ann	...	5.09	3.47	3	7	...				
Home Castle	...	5.30	3.10	3	9	3.61				
Richmond Pen	...	6.66	3.55	3	8	4.89				
Mahogany Hall	...	...	...	...	...	...
Barnstaple	...	...	...	...	...	...
Bryan Castle	...	3.50	1.80	3	7	2.88				
Braco	...	1.70	1.50	3	3	2.89				
Arcadia	...	5.03	2.28	24	7	3.54				
Lancaster	...	3.07	1.50	3	5	3.21				
Harmony Hall	...	2.56	1.46	3	5	2.57				
Vale Royal	...	6.05	2.02	24	7	4.54				
Colchis Pen	...	3.80	1.30	3	4	5.32				
Swanswick	...	...	...	...	...	...
Georgia	...	...	...	...	...	...
Long Pond	...	7.95	1.55	24	8	...				
Hyde Hall	...	6.65	2.00	24	6	...				
Steelfield	...	6.54	2.15	24	7	...				
Etingdon	...	5.20	2.50	24	5	...				
Lottery	...	...	...	...	...	...
Falmouth	...	2.18	1.65	3	5	2.77				
Florence Hall	...	...	...	...	...	...
Good Hope	...	9.38	3.00	3	10	...				
Unity	...	...	...	...	...	...
Kent	...	...	...	...	...	...
Canaan	...	6.21	3.12	3	8	...				
Content	...	5.62	3.40	3	5	...				
Guildbro	...	10.64	3.91	3	15	5.88				
Glasgow	...	8.45	4.00	3	6	...				
Spring Estate	...	5.19	3.75	3	3	2.62				
Montego Bay	...	6.06	3.50	3	10	5.63				
Catherine Hall	...	6.28	3.35	3	9	6.72				
Friendship	...	...	...	...	...	...
Retirement	...	11.37	1.70	26	12	...				
King Gate	...	7.03	4.10	3	5	5.82				
Blue Hole	...	6.12	3.80	3	6	...				
Houghton Court	...	3.05	2.30	3	5	7.21				
Lucea	...	4.28	3.03	3	8	6.86				
Green Island	...	9.00	3.40	3	11	...				
						CENTRAL SUB-DIVISION.				
Rio Magno	...	5.33	2.00	3	5	...				
Headworks, Rio Cobre	...	3.67	2.46	3	5	5.75				
Linstead	...	4.90	2.80	3	9	8.22				
Berkshire Hall	...	9.75	4.54	26	7	5.62				
Point Hill	...	1.91	1.50	15	3	12.37				
Bellas Gate	...	3.83	2.65	24	3	...				
Worthy Park	...	...	...	...	...	...
Croft Hill	...	5.26	4.64	3	4	7.96				
Chapelton	...	6.62	3.43	3	7	6.81				
Danks Works	...	5.12	3.23	3	9	5.84				
Savoy House	...	7.82	3.28	3	8	6.04				
Crooked River	...	6.97	3.50	3	9	...				
Trout Hall	...	7.98	3.50	3	10	...				
Frankfield	...	8.85	5.10	3	4	...				
Mean	...	4.68	...	...	...	...

WEST-CENTRAL DIVISION.	AUGUST, 1918.					SOUTHERN DIVISION.	AUGUST, 1918.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Whitney	9.25	5.75	2	5	8.97	Morant Point L. H.	4.36	3.95	3	6	5.31
Mocho, Clarendon	6.55	4.50	3	6	6.68	Elliott Hill	4.89	3.11	4	10	...
Spaldings	10.60	7.25	3	8	...	Pleasant Hill	4.55	3.80	3	4	...
Tan-y-bryn	8.98	4.96	3	11	...	East Prospect	6.66	4.67	3	7	6.60
Brokenhurst	13.67	7.40	3	10	7.12	Morant Bay	5.49	2.35	3	7	5.68
Christiana	9.53	6.50	3	9	6.44	Easington	2.20	0.60	3	8	6.17
Chudleigh	9.24	5.60	3	8	9.02	Bull Bay	1.67	1.42	3	2	2.82
Shooter's Hill	11.50	5.42	3	11	8.06	Bellevue	5.45	4.68	3	4	...
Spitzbergen	...	...	...	...	...	Gordon Town	5.95	3.40	4	5	4.47
Kendal, Manchester	16.19	8.03	3	9	6.80	Widcombe	...	...	...	...	...
Marshall's Pen	9.55	6.50	3	8	8.38	Hope Gardens	3.41	...	...	...	5.29
Mandeville	12.68	8.77	3	9	8.03	King's House Gardens	2.00	2.00	3	1	5.67
Carlton, Mandeville	...	...	...	...	...	Melrose	3.85	3.57	3	2	...
The Hill	...	...	...	...	...	Halfway Tree	3.36	2.65	3	2	3.54
Fairfield, Manchester	7.08	5.60	3	11	5.37	Lunatic Asylum	2.31	2.28	3	3	2.59
Ulster Spruig	13.45	4.55	3	9	6.91	Glenmore Road	3.16	2.81	3	4	...
Freeman's Hall	8.50	3.00	3	10	...	Kingston P. W. Office	2.87	2.67	3	4	3.88
Albert Town	11.68	6.28	3	4	8.79	Plumb Point L. H.	4.20	2.80	3	5	3.50
Lowe River	12.97	4.76	3	8	7.36	Clifton Pen	3.20	3.20	3	1	...
Troy	6.85	4.30	3	6	10.07	Quarantine Station	2.45	2.45	3	1	...
Windsor Pen, Trel.	8.06	3.20	3	11	8.42	Spanish Town	4.69	2.88	3	3	4.04
Medina	3.72	2.30	12	5	...	Hog Hole, St. Catherine	5.78	2.66	3	6	4.53
Balaclava Police Station	7.17	5.60	3	8	7.02	Hartlands	3.45	3.05	3	2	3.20
Siloah	15.53	3.60	29	11	11.34	Belmont, Guanaboa Vale	6.10	3.35	4	6	...
Appleton Estate	13.88	4.85	3	18	...	Old Harbour	3.00	2.50	3	3	4.66
Maggotty	11.81	5.02	3	11	10.65	May Pen	5.03	3.98	3	2	4.79
Butlers	14.40	4.95	3	9	...	Happy Hut	6.22	4.60	3	4	...
Dromilly Pen	7.40	2.55	3	12	...	Dunkley's, Vere	5.60	4.70	15	3	4.25
Spring Vale	8.44	4.55	3	7	11.61	Dry River "	4.91	4.49	3	4	3.95
Garland	...	...	...	...	...	Denbigh	...	...	...	...	...
Mocho, Catadupa	13.70	6.73	3	6	...	Toll Gate	5.15	4.50	3	4	...
Springfield, St. Elizabeth	18.07	6.75	3	14	...	Woodleigh	4.00	4.00	3	1	...
Chesterfield, St. James	19.95	6.80	3	...	...	New Yarmouth	5.23	4.69	3	2	3.86
Catadupa Rly. Station	...	...	...	...	...	Exeter, Vere	...	...	...	...	...
Kempshot	14.13	3.82	13	13	8.61	Rhymesbury	...	...	...	...	...
Cambridge, St. James	8.14	4.53	3	13	...	Milk River	4.73	4.73	3	1	5.26
Ducketts	11.95	7.00	3	...	...	Clarendon Pk. Ry. St.	...	...	...	...	...
New Market, Police St.	14.01	7.53	3	15	...	Retrieve	1.94	1.30	3	4	...
The Bog, New Market	14.19	6.92	3	15	...	Hog Hole, S. Manch.	9.61	8.00	3	4	...
Kew Park	...	...	...	...	...	Stone's Hope	13.24	10.50	3	8	5.99
Montpelier	7.72	3.40	3	10	...	Newport, Manchester	12.49	10.20	3	9	5.39
Burnt Ground	11.90	2.60	25	8	...	Great Valley, Man.	11.87	10.00	3	6	4.49
Knockalva	11.13	3.28	3	16	...	Alligator Pond	10.16	9.16	3	6	3.08
Ramble	...	...	...	...	...	Southfield, St. Elizabeth	12.04	11.15	3	3	...
Petersville	11.74	5.81	3	16	10.56	Lititz	10.38	9.31	3	7	...
Darliston	16.85	4.51	3	22	14.62	Torrington	9.41	8.80	3	4	4.55
Bluefields	5.34	2.30	11	6	10.96	Bethlehem, St. Eliz.	9.07	7.75	3	8	4.99
Whithorn	14.04	5.00	3	18	11.74	Santa Cruz	9.85	5.60	3	7	8.62
Water Works Pen	12.76	4.50	3	22	...	Pedro Plains Police St.	3.88	3.75	3	3	2.53
Great Valley, Han.	5.60	3.20	3	5	...	Mountainside	6.01	4.60	3	6	...
Fontabelle, Westm.	7.58	3.00	10	9	11.28	Black River	8.30	3.65	3	10	5.95
Belleisle	...	...	...	...	...	Font Hill	7.70	4.35	3	9	6.06
Morgan's Bridge	8.45	3.80	3	8	11.70	Mount Edgecombe	6.54	2.78	3	15	8.19
King's Vale Police St.	5.95	2.67	3	9	10.76	Sweet River	7.58	4.76	3	11	8.75
						Windsor, Sav.-la-mar	6.75	2.80	3	12	7.38
						Orchard	7.77	2.78	3	11	...
						Sav.-la-mar	5.52	2.64	3	12	7.49
						Little London	7.75	4.20	3	6	...
						Retreat	6.80	6.06	3	3	8.70
						Negril Point L.H.	7.51	5.70	3	7	6.78
Mean	10.57	...	...	...	...	Mean	6.58	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	AUGUST.	
	1918.	Average.
	In.	In.
North-Eastern Division	... 7.23	7.71
Northern	... 4.68	4.83
West-Central	... 10.57	9.88
Southern	... 6.58	5.14
The Island	... 7.26	6.89

SHOCKS OF EARTHQUAKE IN AUGUST, 1918.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
	hr. min.		
		No earthquake	this month.

During the morning of the 3rd August, a very small barometric depression passed on a westerly course far south of Jamaica, which produced a succession of heavy squalls and rains in different parts of the Island. The passage of the depression was marked by the change of the direction of the wind from NE to E and SE rather than by any fall of the bar. which did not exceed more than a few hundredths of an inch below the mean; and it apparently moved at the rate of 16 or 17 miles an hour.

At Port Antonio, Farm Hill and Rose Hill in the North-eastern division, 9 or 10 inches of rain fell on the 3rd; over Southern Manchester 10 or 11 inches fell; and here the squalls seem to have been strongest; two schooners were wrecked at Alligator Pond with some loss of life; and several fishermen were drowned along that coast.

At Montego Bay the bad weather commenced with a heavy rain squall at 6.30 a.m., and the same squall or another one struck Lucea at 6.45 a.m., but no damage was done.

The U.S. Weather Bureau reported that day that there was some disturbance in the eastern Caribbean; but nothing further was heard of it.

On the 22nd and 23rd August the U.S. Weather Bureau warned us of an approaching disturbance; and on the 24th there was much anxiety. The clouds were driving all day from the E., but there was little wind, little rain, and the bar. did not fall more than a few hundredths of an inch below the mean. In fact, there was a repetition of what occurred on the 3rd without the heavy rain squalls.

MAXWELL HALL,
Government Meteorologist.



Montego Bay P.O.

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JAMAICA

WEATHER REPORT

FOR THE MONTH OF
SEPTEMBER, 1918.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part racto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range.
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House	8	29.922	29.892	81.5	85.6	87.6	78.5	9.1	88.5	3*	72.0	4	16.5
Kingston	24	29.913	29.867	77.5	85.7	90.0	73.9	16.1	91.9	7	71.2	27	20.7
Negril Point Light House	33	29.907	29.868	79.4	85.4	87.9	73.7	14.2	91.5	4	70.6	27	20.9
Castleton Gardens	496	..	..	69.7	83.3	88.7	68.8	19.9	92	3*	65	23	27
Hope Gardens†	668	29.913	29.840	74.1	85.2	89.9	70.5	19.4	93	10	65	7	28
Bavinton, Stony Hill**	1,349	29.922	29.854	72.1	80.0	84.9	69.1	15.8	88.0	19	67.0	7*	21.0
Stony Hill Indus. School	1,400	..	..	72.4	79.8	84.7	68.8	15.9	90	27	67	2*	23
Kempshot	1,773	29.920	29.880	73.0	77.0	82.6	70.7	11.9	85.2	13	68.6	25	16.6
Hill Gardens	4,900	25.291	25.265	64.7	67.0	70.3	58.1	12.2	73	18*	57	13*	16

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.		Rainfall.	Wind per diem.	Wind: direction from and miles per hour.		Amount of Cloud. Lower, Middle and Upper.									
		7 a.m.	3 p.m.			7 a.m.	3 p.m.	7 a.m.			3 p.m.						
								7 a.m.	3 p.m.		7 a.m.	3 p.m.					
	ft.	°	°	in.	miles.	m.	m.	L.	M.	U.	L.	M.	U.				
Morant Pt. Light House	8	74.1	78	74.4	70	3.93	222	ENE	9.0	NE	10.3	0.9	1.7	1.6	0.7	2.3	2.0
Kingston	24	71.3	81	73.5	67	0.30	139	NNE	4.0	SE	14.1	0.1	0.7	2.6	2.8	1.9	2.3
Negril Point Light House†	33	72.9	81	74.5	70	10.79	192	ENE	7.7	Var.	9.9	0.7	0.4	4.6	1.0	6.2	1.1
Castleton Gardens	496	67.9	93	74.4	74	5.79	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	66.8	78	71.0	63	3.24	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	67.7	86	71.1	75	4.64	..	S	1.2	ENE	4.0	0.7	0.8	2.2	3.6	2.4	1.2
Stony Hill Indus. School	1,400	67.7	85	70.7	74	1.40	..	..	..	..	..	..	..	..	..	..	..
Kempshot	1,773	67.8	83	72.6	86	6.59	124	ESE	4.3	E	2.5	1.1	0.1	2.3	1.3	6.1	1.1
Hill Gardens	4,900	61.9	90	62.8	87	3.27	..	..	..	..	..	..	..	..	..	..	..

* and on other days.
† Negril Point Light House.
** Bavinton, Stony Hill.

† Hope Gardens. Bar read at 9 a.m. and 3 p.m.
Wind 11 p.m. NE 7.0
Mean Min. temp on grass 65.5
Earth temp 1 ft. below surface 80.4
" 4ft. " " 79.0

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending his report to press ; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.		SEPT., 1918.									
		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.					
			Amount	Date.							
	In.	In.			In.						
Manchioneal	5.01	1.52	11	14	11.01	Bryan Castle	3.50	1.35	14	7	3.44
Spring Valley	...	...	...	...	...	Braco	1.75	0.65	23	4	3.31
Bath	7.18	2.10	13	15	12.03	Arcadia	3.75	1.50	14	5	4.02
Priestman's River	2.15	0.70	10	5	...	Lancaster	1.79	0.45	13	6	3.89
Moore Town	12.00	4.00	11	8	14.21	Harmony Hall	1.05	0.55	10	4	3.64
Port Antonio	4.22	1.81	19	10	10.43	Vale Royal	3.03	1.05	14	8	4.64
Fellowship	7.60	3.00	12	8	12.93	Colchis Pen	3.95	1.25	30	8	5.23
Johnson River Bridge	5.60	1.24	13	13	11.48	Georgia	2.73	1.70	14	4	...
Shrewsbury	6.60	3.00	19	4	10.31	Long Pond	4.66	2.28	14	5	3.71
Cedar Valley, St. Thos.	8.28	1.95	15	8	13.40	Hyde Hall	3.65	1.00	14	6	5.28
Brooklodge	...	...	...	...	...	Steelfield	3.82	2.01	14	4	4.25
Farm Hill	4.29	1.45	4	6	10.00	Etingdon	3.00	1.80	14	4	3.13
Hill Gardens	3.37	0.80	3	8	9.84	Lottery	...	...	...	...	...
Chepstowe	2.04	2.04	14	1	...	Falmouth	1.51	0.52	4	6	3.46
Spring Garden	3.59	1.00	11	7	...	Florence Hall	1.12	0.69	14	3	4.36
Buff Bay	3.65	1.35	19	9	4.94	Good Hope	5.32	2.50	4	11	...
Greenvale	10.42	2.33	23	9	8.49	Canaan	6.62	1.55	4	11	7.96
Belvedere, Portland	6.28	2.30	12	8	...	Content	5.00	1.70	14	6	4.88
Mt. Holstein	5.24	0.79	7	17	9.02	Gillsbro	5.28	2.10	21	13	7.91
Irish Town	4.41	1.12	9	7	9.52	Glasgow	6.70	3.00	14	6	...
Rose Hill	7.78	2.15	23	9	...	Spring Estate	3.55	1.03	26	8	4.30
Hardware Gap	7.25	1.42	5	14	9.02	Montego Bay	7.19	1.36	21	14	6.91
Stony Hill Ind. School	4.40	1.42	5	14	9.82	Catherine Hall	8.73	1.21	16	15	6.89
Castleton Gardens	5.97	1.18	30	13	11.21	Friendship	5.85	2.37	21	11	...
Lawrence Tavern	10.03	2.52	4	10	9.53	Retirement	9.53	2.88	8	17	...
Cedar Valley, Red Hills	...	...	...	...	...	King Gate	6.11	1.97	16	5	7.04
Zion Hill	4.57	1.00	7	10	...	Blue Hole	8.65	5.09	16	3	...
Agualta Vale	3.63	1.60	11	11	4.61	Haughton Court	4.85	1.40	28	13	6.38
Water Valley	4.10	0.98	12	10	5.98	Lucea	7.79	1.78	21	17	7.68
Richmond, St. Mary	5.19	1.60	12	15	5.59	Green Island	7.42	2.00	29	9	...
Highgate	7.73	2.97	12	10	...						
Hampstead, St. Mary	3.24	1.67	12	7	6.90						
Guy's Hill	2.20	1.40	12	4	...						
Lucky Hill	2.67	0.60	26	8	...						
Rio Hoe	2.77	0.77	5	9	6.18						
Unity Valley	4.72	2.25	14	12	8.20						
Moneague	3.18	0.90	16	9	7.14						
Claremont	5.00	1.30	14	7	5.31						
Albion, St. Ann	4.75	1.65	4	12	6.98						
Averham Park	5.35	1.50	15	6	4.83						
Mean	5.62	...	...	...	...		

Mean

4.13

Mean

4.13

WEST-CENTRAL DIVISION.	SEPT., 1918.					SOUTHERN DIVISION.	SEPT., 1918.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.			In.	
Whitney	...	...	...	...	...	Morant Point L. H.	3.98	1.23	30	13	7.31
Mocho, Clarendon	1.60	0.70	3	4	10.50	Elliott Hill	4.55	1.06	14	18	...
Spaldings	6.54	1.89	30	14	...	Pleasant Hill	5.42	1.62	30	11	...
Tan-y-bryn	4.97	1.06	30	14	...	East Prospect	3.87	1.05	20	11	8.06
Brokenhurst	1.72	0.50	13	8	9.53	Morant Bay	5.90	1.58	20	8	8.41
Christiana	4.84	1.40	3	12	9.97	Easington	4.37	2.30	15	10	8.73
Chudleigh	5.35	1.60	1	13	10.31	Bull Bay	0.00	...	...	...	4.70
Shooter's Hill	3.43	1.82	14	12	10.27	Bellevue	4.87	1.56	14	11	...
Kendal, Manchester	3.39	1.50	14	7	9.53	Gordon Town	3.24	1.40	9	6	8.57
Marshall's Pen	5.65	1.82	12	8	8.74	Widcombe	...	...	...	...	...
Mandeville	4.86	2.65	12	12	10.04	Hope Gardens	3.24	...	...	...	7.04
Carlton, Mandeville	...	...	...	...	...	King's House Gardens	1.10	...	...	...	5.03
The Hill	...	...	...	...	...	Melrose	...	...	...	...	...
Fairfield, Manchester	2.96	1.32	1	11	7.80	Halfway Tree	0.16	0.16	13	1	5.09
Ulster Spring	16.10	2.75	30	15	8.44	Lunatic Asylum	0.70	0.27	13	4	4.72
Freeman's Hall	5.98	2.05	7	13	...	Glenmore Road	0.85	0.23	13	7	...
Albert Town	10.53	2.08	7	10	11.20	Kingston P. W. Office	0.30	0.11	1	3	4.18
Lowe River	14.49	2.00	16	11	10.39	Plumb Point L. H.	3.04	1.08	13	6	3.81
Troy	17.23	6.50	1	11	13.77	Clifton Pen	0.00	...	...	0	...
Windsor Pen, Trel.	10.92	1.90	15	20	9.06	Quarantine Station	0.50	0.50	14	1	...
Medina	3.19	1.50	12	7	...	Spanish Town	3.72	1.72	14	5	5.30
Balaclava Police Station	7.95	1.80	3	15	10.31	Hog Hole, St. Catherine	4.95	2.61	14	6	6.33
Siloah	14.78	3.05	30	17	13.29	Hartlands	0.27	0.22	14	2	4.80
Appleton Estate	13.90	2.67	9	18	11.50	Belmont, Guanaboa Vale	4.70	1.70	3	9	...
Maggotty	12.48	1.95	9	13	11.84	Old Harbour	1.68	1.18	13	3	6.45
Butlers	10.54	2.00	2	18	...	May Pen	2.40	1.00	3	8	7.89
Dromilly Pen	5.06	1.30	15	14	...	Happy Hut	2.41	1.70	3	5	...
Spring Vale	3.40	0.80	15	10	12.59	Dunkley's, Vere	6.08	3.22	3	8	6.52
Garland	...	...	...	...	...	Dry River "	3.90	1.74	12	4	...
Mocho, Catadupa	...	...	...	...	...	Denbigh	...	...	...	...	...
Springfield, St. Elizabeth	14.06	2.50	2	16	...	Toll Gate	2.02	0.80	16	6	...
Chesterfield, St. James	12.72	2.87	28	12	...	Woodleigh	...	...	...	...	...
Catadupa Rly. Station	...	...	...	...	...	New Yarmouth	4.86	1.67	3	6	5.73
Kempshot	6.59	1.12	19	18	9.64	Exeter, Vere	5.65	2.40	17	9	...
Cambridge, St. James	13.14	1.63	16	19	...	Milk River	4.88	3.53	16	3	6.33
Ducketts	11.46	2.18	9	14	...	Clarendon Pk. Ry. St.	...	...	...	...	...
New Market, Police St.	11.09	2.85	2	16	...	Retrieve	2.44	1.16	16	6	...
The Bog, New Market	14.04	3.70	2	17	...	Hog Hole, S. Manch.	3.15	1.65	18	5	...
Kew Park	7.39	1.34	19	12	12.06	Stone's Hope	1.86	0.78	1	3	8.30
Montpelier	9.25	1.61	13	17	...	Newport, Manchester	1.92	0.55	3	8	7.49
Burnt Ground	13.06	4.50	16	18	11.91	Great Valley, Man.	0.66	0.50	11	4	6.63
Knockalva	12.65	2.40	16	18	...	Alligator Pond	0.51	0.16	1	4	4.98
Ramble	...	...	...	...	...	Southfield, St. Elizabeth	3.41	1.70	1	7	...
Petersville	8.17	4.30	30	9	9.83	Lititz	1.45	1.11	1	5	...
Darliston	8.26	1.54	1	19	13.79	Torrington	2.14	0.75	12	4	6.42
Bluefields	6.14	1.12	12	13	11.04	Bethlehem, St. Eliz.	5.32	1.26	11	9	6.78
Whithorn	8.83	1.43	23	19	12.06	Santa Cruz	5.97	1.70	1	13	10.38
Water Works Pen	7.85	1.10	21	18	...	Pedro Plains Police St.	0.96	0.46	1	3	4.90
Great Valley, Han.	11.58	2.50	15	10	12.27	Mountainside	2.57	0.63	1	6	...
Fontabelle, Westm.	7.94	2.27	29	13	10.90	Black River	0.80	0.30	30	7	5.75
Belleisle	...	...	...	...	...	Font Hill	2.65	1.95	30	3	7.11
Morgan's Bridge	9.79	2.15	23	9	12.18	Mount Edgcombe	5.25	1.82	30	9	8.39
King's Vale Police St.	10.60	1.90	7	8	11.44	Sweet River	5.39	1.20	21	14	7.83
						Windsor, Sav.-la-mar	4.88	1.50	12	10	7.26
						Orchard	4.81	1.51	12	11	...
						Sav.-la-mar	4.64	1.35	15	11	6.96
						Little London	...	...	...	...	...
						Retreat	11.33	4.60	18	10	8.28
						Negril Point L.H.	10.79	2.45	19	15	7.51
Mean	8.46	...	...	...	...	Mean	3.44	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

SHOCKS OF EARTHQUAKE IN SEPT., 1918.

DIVISIONAL AND ISLAND RAINFALL.	SEPTEMBER.	
	1918.	Average.
	In.	In.
North-Eastern Division ...	5.62	8.68
Northern " ...	4.13	5.70
West-Central " ...	8.46	10.78
Southern " ...	3.44	6.49
The Island ...	5.41	7.91

Date.	Standard Time (Approx.) hr. min.	Intensity.	Notes: where felt, etc.
			No earthquake this month.

On Sept. 9th. the U. S. Weather Bureau reported a weather disturbance over the Windward Islands: on the 10th. it was South of Porto Rico: on the 11th. it was south of Hayti: and there was some anxiety in Jamaica on the 12th. But the fall of the bar. was very small, hardly a tenth of an inch below the mean; the wind was hardly affected, there was some rain, but no indication of an approaching hurricane; and on the 13th the disturbance was reported to be near Great Inagua. It must have had small intensity.

Corrections to the first chart in the Weather Report for Sept. 1917.

In Dec. 1917 the Rev. M. Gutierrez-Lanza S J. wrote Mr. Brennan from the Belen College, Havana, pointing out that the first chart in WR. No. 474 for Sept. 1917 was wrong; and I subsequently received the official Bulletin of Cuba for Sept., 1917 from Mr. Luis G. Carbonell which was to the same effect.

The second chart appears to be correct: there can be no doubt that there were two centres, not far apart, which passed along Jamaica. It has been suggested to me that there was only one highly oval centre: but the very first observations made at Morant Pt. Light house, Morant Bay, and Port Antonio show that this was not the case.

At 3 a. m. a centre passed over or near Morant Bay, while the wind at the Light-house was ESE, and at Port Antonio, N. The former direction had reference to that centre; the latter to the next centre which struck Port Antonio at 4 a. m. And it will be noticed that by joining the two centres and forming an oval area, the wind with hurricane force at the Light-house would have been blowing at right angles to the isobars, against the chief Cyclonic law,

And similarly for other places in the Island where the observations were sufficiently definite.

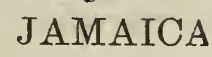
After the two centres had passed along Jamaica, the southern one with greatly reduced speed passed over Grand Cayman at noon on the 24th, the northern one with also greatly reduced speed apparently passed between Grand and Little Cayman; and there they apparently joined to form the terrible hurricane which passed over Nueva Gerona in the Isle of Pines, at 8 a. m. Sept. 25th. over Consolacion del Sur in the province of Pinar del Rio, at 8 p. m. and so into the Gulf and on to Pensacola.

At Nueva Gerona and at Consolacion del Sur the bar. at both places fell at 27.74; in Jamaica it did not fall below 29.14; and I have suggested that the two centres joined in order to explain this extraordinary development in only two days.

The first chart in W. R. No. 474 should therefore be altered to suit these circumstances.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.



OCTOBER, 1918.

The amount of Cloud is given in tenths of the whole sky ; the Lower clouds are for the most part racto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

[illegible]

* and on other days.	† Hope Gardens.	Bar. read at 9 a.m. and 3 p.m.
‡ Negril Point Light House.	Wind 11 p.m.	ENE 6.4
** Bavinton, Stony Hill.	Mean Min. temp. on grass	65.8
	Earth temp. 1 ft. below surface	78.1
	“ 4ft. “ “	78.0

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending his report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

	OCT., 1918.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
NORTH-EASTERN DIVISION.	In.	In.			In.
Mauchioneal	15.50	2.15	19	19	18.91
Spring Valley	18.60	2.88	17	23	15.39
Bath	14.47	2.75	17	26	18.37
Priestman's River	14.19	3.00	17	13	...
Moore Town	10.90	2.05	...	...	21.93
Port Antonio	8.34	3.00	19	21	15.16
Fellowship	10.62	3.18	19	25	18.37
Johnson River Bridge	10.64	2.05	17	20	13.85
Shrewsbury	15.50	2.30	20	12	...
Cedar Valley, St. Thos.	16.27	2.65	26	17	15.05
Farm Hill	16.87	3.55	27	14	12.59
Hill Gardens	15.50	3.38	26	21	18.20
Chepstowe	5.07	2.00	22	5	...
Spring Garden	6.87	1.50	22	5	...
Buff Bay	3.64	1.35	19	15	11.76
Greenvale	5.12	1.12	28	10	12.45
Belvedere, Portland	4.05	1.76	19	8	...
Mt. Holstein	12.46	1.73	13	20	12.71
Irish Town	8.83	1.60	31	13	11.54
Rose Hill	19.00	3.45	9	20	...
Hardware Gap	15.25	...	...	...	16.36
Stony Hill Ind. School	15.85	2.59	28	26	14.38
Castleton Gardens	7.43	1.96	31	17	15.48
Lawrence Tavern	11.69	1.40	10	21	12.71
Cedar Valley, Red Hills	...	...	...	...	...
Zion Hill	12.92	2.45	4	23	...
Agualta Vale	2.08	0.87	22	10	5.66
Water Valley	6.99	1.59	13	12	8.18
Platfield	7.45	1.10	27	13	...
Richmond, St. Mary	5.13	1.15	29	17	9.83
Highgate	6.13	1.95	14	13	...
Hampstead, St. Mary	3.24	0.98	30	10	9.93
Guy's Hill	4.94	1.10	29	13	...
Lucky Hill	5.29	0.95	21	13	...
Rio Hoe	4.84	2.68	23	7	9.64
Unity Valley	5.96	1.55	21	17	9.50
Moneague	6.39	2.37	21	11	9.94
Claremont	4.70	1.20	24	8	8.41
Albion, St. Ann	7.67	1.37	28	16	9.02
Averham Park	3.61	1.50	21	7	9.35
Mean	9.80	...	...	...	...

NORTHERN DIVISION	OCT., 1918.				
	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			In.
Port Maria	1.31	0.50	9	11	8.86
Ocho Rios	2.35	0.70	8	4	4.84
Bogue, Ocho Rios	6.70	2.10	23	8	4.90
Rockfield	5.45	2.86	23	9	...
Drax Hall	1.80	0.70	30	7	7.58
Liberty Hill	6.40	2.50	23	7	6.58
St. Ann's Bay	3.11	1.00	30	10	7.22
Seville	...	...	...	...	...
Richmond Estate	...	...	...	...	...
Llandovery	3.64	1.35	30	6	7.48
Runaway Bay	0.40	0.40	30	1	...
Brown's Town	9.73	2.40	1	10	8.98
Alexandria	10.97	1.85	1	16	...
Watt Town, St. Ann	11.60	2.02	26	14	...
Home Castle	3.65	0.90	23	...	7.14
Richmond Pen	11.65	1.90	15	16	7.78
Mahogany Hall	...	...	...	...	...
Bryan Castle	2.30	0.80	20	9	8.81
Braco	2.35	1.15	20	5	5.42
Arcadia	4.45	1.20	18	8	6.24
Lancaster	3.90	1.55	20	11	5.96
Harmony Hall	3.77	1.47	20	12	5.42
Vale Royal	5.45	1.50	1	9	6.69
Colchis Pen	7.15	1.20	23	13	8.53
Georgia	7.64	2.40	1	11	...
Long Pond	7.03	1.35	1	9	...
Hyde Hall	7.25	1.50	20	12	...
Steelfield	6.58	2.17	20	10	...
Etingdon	6.40	2.50	20	11	...
Lottery	...	...	...	...	...
Falmouth	2.46	0.85	1	12	5.77
Florence Hall	2.28	0.85	20	4	...
Good Hope	...	...	...	...	...
Canaan	11.69	3.90	22	14	8.24
Content	3.40	0.96	15	11	...
Guildsbro	6.84	1.05	29	16	7.30
Glasgow	...	...	...	...	...
Spring Estate	2.17	0.48	1	7	7.65
Montego Bay	6.95	2.33	1	10	7.97
Catherine Hall	...	...	...	...	...
Friendship	5.16	1.33	20	14	...
Retirement	10.73	2.53	20	14	...
King Gate	7.06	1.60	29	6	9.12
Blue Hole	10.44	2.97	23	7	...
Haughton Court	5.90	1.60	10	10	6.80
Lucea	10.56	3.90	30	16	8.52
Green Island	7.13	2.07	17	12	...
CENTRAL SUB-DIVISION.					
Rio Magno	5.75	1.80	5	9	...
Headworks, Rio Cobre	3.96	1.65	17	14	9.79
Linstead	7.36	1.50	6	16	10.32
Berkshire Hall	5.38	1.07	1	16	6.42
Point Hill	12.99	2.80	2	11	16.83
Bellas Gate	6.37	2.00	26	11	...
Croft Hill	13.04	2.25	24	16	10.19
Chapelton	9.04	1.72	15	17	11.81
Danks Works	8.25	2.19	15	20	12.41
Savoy House	...	...	...	...	...
Crooked River	11.35	3.15	15	17	...
Trout Hall	12.14	2.20	29	14	...
Frankfield	14.18	2.55	22	17	...
Mean	6.04	...	...	...	...

WEST-CENTRAL DIVISION.	OCT., 1918.					SOUTHERN DIVISION.	OCT., 1918.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.			In.	
Whitney	...	...	...	...	...	Morant Point L. H.	8.14	1.37	17	24	11.71
Mocho, Clarendon	11.40	2.00	26	11	15.90	Elliott Hill	13.58	2.51	18	28	...
Spaldings	14.12	2.77	26	27	...	Pleasant Hill	11.09	2.34	17	20	...
Tan-y-bryn	13.83	2.38	26	23	...	East Prospect	16.57	3.20	17	18	10.99
Brokenhurst	8.93	0.80	30	19	14.94	Morant Bay	10.79	1.82	17	19	14.22
Christiana	13.84	2.10	27	26	12.84	Easington	8.02	2.58	25	12	14.22
Chudleigh	10.63	3.53	23	23	11.73	Bull Bay	2.63	0.72	21	6	10.26
Shooter's Hill	14.86	2.47	21	22	12.53	Bellevue	7.01	1.33	26	21	...
Kendal, Manchester	22.03	4.30	26	18	14.96	Gordon Town	10.88	2.00	31	12	14.15
Marshall's Pen	12.34	2.33	27	21	12.75	Widcombe	...	...	...	...	...
Mandeville	12.45	2.75	27	24	16.56	Hope Gardens	...	...	...	...	...
Carlton, Mandeville	10.63	2.20	27	16	16.56	King's House Gardens	2.94	0.95	31	5	11.09
The Hill	...	...	...	...	...	Melrose	2.23	0.54	31	11	...
Fairfield, Manchester	13.79	3.22	24	24	10.60	Halfway Tree	2.37	0.50	31	9	9.90
Ulster Spring	...	...	...	...	...	Lunatic Asylum	1.43	0.74	30	7	7.93
Freeman's Hall	...	...	...	...	...	Glenmore Road	2.64	0.95	30	10	...
Albert Town	...	...	...	...	...	Kingston P. W. Office	2.17	0.82	21	11	8.15
Lowe River	...	...	...	...	...	Plumb Point L. H.	4.08	1.80	17	8	7.67
Troy	16.93	2.10	28	20	16.49	Clifton Pen	4.70	0.75	30	11	...
Windsor Pen, Trel.	13.03	3.30	19	19	9.49	Quarantine Station	1.49	0.51	24	5	...
Medina	13.50	2.58	23	16	...	Spanish Town	0.34	0.17	21	3	9.59
Balaclava Police Station	13.80	2.13	28	22	13.38	Hog Hole, St. Catherine	1.02	0.26	9	6	10.09
Siloah	23.45	2.50	19	25	16.90	Hartlands	1.83	1.00	25	6	8.00
Appleton Estate	25.09	1.94	23	25	14.64	Belmont, Guanaboa Vale	4.87	0.85	12	18	...
Maggotty	14.52	1.66	17	17	15.30	Old Harbour	4.67	1.34	25	7	11.07
Butlers	14.97	2.00	22	25	...	May Pen	2.06	0.60	17	10	11.57
Dromilly Pen	16.72	4.90	21	17	...	Happy Hut	3.64	2.00	21	6	...
Spring Vale	11.78	2.32	15	16	10.42	Dunkley's, Vere	...	...	...	...	...
Garland	...	...	...	...	...	Dry River "	6.03	1.70	24	10	9.21
Mocho, Catadupa	...	...	...	...	...	Denbigh	...	...	...	...	...
Springfield, St. Elizabeth	14.80	3.55	17	22	...	Toll Gate	7.40	2.50	27	9	...
Chesterfield, St. James	...	...	...	...	...	Woodleigh	1.50	0.90	21	...	...
Catadupa Rly. Station	...	...	...	...	...	New Yarmouth	5.40	1.54	26	9	9.20
Kempshot	10.78	2.55	28	22	9.60	Exeter, Vere	...	...	...	...	...
Cambridge, St. James	16.14	1.51	15	26	...	Milk River	8.48	3.35	24	8	7.56
Ducketts	...	...	...	...	...	Clarendon Pk. Ry. St.	4.57	1.10	27	11	...
New Market, Police St.	12.00	1.66	17	20	...	Retrieve	4.58	1.30	17	13	...
The Bog, New Market	14.53	2.50	16	26	...	Hog Hole, S. Manch.	5.62	1.00	17	10	...
Kew Park	...	...	...	...	...	Stone's Hope	9.15	2.41	24	11	13.35
Montpelier	10.63	1.74	16	20	...	Newport, Manchester	7.33	2.14	24	24	13.26
Burnt Ground	9.45	1.20	17	25	10.57	Great Valley, Man.	7.22	1.75	24	15	11.37
Knockalva	13.14	1.50	17	24	...	Alligator Pond	4.03	1.40	24	10	8.77
Ramble	...	...	...	...	...	Southfield, St. Elizabeth	5.02	1.73	25	15	...
Petersville	13.88	3.34	7	17	16.23	Lititz	7.96	2.68	24	13	...
Darliston	12.15	1.12	25	24	15.71	Torrington	8.62	2.33	24	16	11.26
Bluefields	13.16	1.20	12	26	10.95	Bethlehem, St. Eliz.	7.12	2.35	27	22	11.86
Whithorn	9.64	1.76	27	21	11.93	Santa Cruz	19.47	4.00	26	23	17.01
Water Works Pen	10.35	1.75	20	23	...	Pedro Plains Police St.	1.89	1.04	24	6	6.60
Great Valley, Han.	...	...	...	...	...	Mountainside	11.07	3.28	24	13	...
Fontabelle, Westm.	10.88	2.10	19	21	10.48	Black River	8.06	1.72	24	21	8.74
Belleisle	...	...	...	...	...	Font Hill	7.35	2.85	2	10	9.95
Morgan's Bridge	12.51	2.73	27	9	12.94	Mount Edgecombe	11.87	2.21	7	23	10.05
King's Vale Police St.	9.02	1.80	7	13	10.25	Sweet River	8.55	0.90	2	24	10.06
						Windsor, Sav.-la-mar	4.18	1.15	2	15	8.40
						Orchard	6.50	1.83	2	19	...
						Sav.-la-mar	6.36	0.96	2	19	8.99
						Little London	6.45	1.00	19	11	...
						Retreat	6.91	0.82	5	17	10.96
						Negril Point L.H.	5.18	0.94	16	19	8.37
Mean	13.60	...	...	...	...	Mean	6.32	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	OCTOBER.	
	1918.	Average.
	In.	In.
North-Eastern Division ...	9.80	13.22
Northern " ...	6.04	7.46
West-Central " ...	13.60	12.02
Southern " ...	6.32	10.28
The Island ...	8.94	10.4

SHOCKS OF EARTHQUAKE IN OCT., 1918.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
28	6 p.m.	I	Mt. Holstein; E.N.E. very slight.

The rainfall was irregular over the whole island 0.34 inch was recorded at Spanish Town while 25.09 inches fell at Appleton.

Corrigendum—W. R. No. 487 p. 1. Bavinton,
Wind at 7 a.m. read E.N.E.
at 3 p.m. " S.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

1.05-
JA



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APR 2 1919

JAMAICA

WEATHER REPORT

FOR THE MONTH OF

NOVEMBER, 1918.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part racto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range.
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light. Ho 186	8	29.923	29.884	70.0	82.8	81.5	76.9	7.6	83.0	1*	67.0	12	19.0
Kingston	24	29.909	29.848	71.8	81.3	87.3	70.7	16.6	90.3	15	63.1	9	24.2
Negril Point Light Ho 157	33	29.915	29.853	71.1	82.8	85.9	70.1	15.8	89.5	3*	64.7	9*	24.8
Castleton Gardens	496	..	..	67.2	81.9	83.1	66.2	16.9	90	14	62	11*	28
Hope Gardens	668	29.925	29.840	69.2	83.9	87.1	66.5	20.6	90	16*	61	12	29
Bavinton, Stony Hill**	1,349	29.925	29.847	67.9	77.6	81.7	65.9	15.8	84.5	17	63.0	20*	21.5
Stony Hill Indus. School	1,400	..	..	..	..	..	..	..	..	..	..	..	..
Kempshot	1,773	29.926	29.870	70.4	71.7	73.5	68.7	9.8	81.8	30	66.3	9	15.5
Hill Gardens	4,900	..	..	..	..	..	..	..	..	..	..	..	..

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.		Amount of Cloud. Lower, Middle and Upper.							
		7 a.m.		3 p.m.				7 a.m.	3 p.m.	7 a.m.			3 p.m.				
	ft.	°	°			in	miles		m.	m.	L	M	U.	L	M	U.	
Morant Pt. Light House	8	70.6	75	71.1	68	3.46	236	NE	15.0	NE	14.0	2.5	2.0	0.2	1.7	1.9	0.3
Kingston	24	67.8	87	71.3	65	0.71	162	N	4.5	SE	10.9	1.0	1.2	0.5	2.1	3.2	1.1
Negril Point Light House	33	68.8	83	71.0	8	1.55	191	NE	7.0	NNE	11.2	0.3	0.6	2.1	2.3	3.2	0.8
Castleton Gardens	496	65.4	93	72.3	72	9.74	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	63.5	84	69.1	62	1.77	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	64.8	87	68.3	73	6.70	..	NNE	1.5	N	4.2	1.1	1.3	0.2	3.9	2.6	0.8
Stony Hill Indus. School	1,400	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kempshot	1,773	65.6	85	68.3	81	3.62	128	E	5.9	ENE	3.7	1.3	0.5	0.6	2.1	3.1	0.4
Hill Gardens	4,900	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

* and on other days

† Negril Point Light House.

** Bavinton Stony Hill.

Wind 11 p.m.
Mean Min. temp on grass
Earth temp 1 ft. below surface
" 4ft. " "

† Hope Gardens. Bar. read at 9 a.m. and 3 p.m.

NE 8.1
62.2
75.6
76.7

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NOV. 1918.

NORTH-EASTERN DIVISION.	Greatest fall in 24 hours.				
	Total Fall.	Amount		Days on which 0.01 or more fell.	Average.
		In.	Date.		
Manchioneal	12.50	2.40	17	14	14.23
Spring Valley	...	...	...	...	...
Bath	12.31	2.90	6	21	12.95
Priestman's River	10.40	2.10	14	7	...
Moore Town	15.35	5.00	6	10	34.15
Port Antonio	12.92	3.24	14	13	16.39
Fellowship	...	...	...	...	...
Johnson River Bridge	4.82	0.68	23	17	6.70
Shrewsbury	25.48	7.00	9	9	30.11
Cedar Valley, St. Thos.	4.05	1.70	6	3	13.09
Farm Hill	14.52	8.15	6	5	34.16
Hill Gardens	4.32	1.36	22	15	...
Chepstowe	9.63	6.00	6	5	...
Spring Garden	0.10	3.09	22	11	...
Buff Bay	5.84	2.16	22	11	16.12
Greenvale	26.28	10.80	6	11	31.57
Belvedere, Portland	9.50	4.58	22	12	...
Mt. Holstein	19.74	0.25	6	18	26.11
Irish Town	8.00	1.90	3	6	11.02
Rose Hill	15.89	4.50	2	12	...
Hardware Gap	12.10	...	3	...	13.02
Stony Hill Ind. School	4.06	1.50	2	6	7.14
Castleton Gardens	9.47	2.75	30	11	14.42
Lawrence Tavern	2.92	1.53	6	7	8.33
Zion Hill	3.93	1.45	3	8	...
Agualta Vale	6.02	2.13	22	11	11.24
Water Valley	7.94	1.44	22	13	9.95
Platfield	6.92	2.63	21	11	...
Richmond, St. Mary	9.51	2.88	6	12	11.65
Highgate	...	...	...	...	...
Hampstead, St. Mary	9.93	1.93	21	15	21.06
Guy's Hill	7.16	2.20	22	11	...
Lucky Hill	4.54	1.45	6	8	...
Rio Hoe	5.01	2.00	6	5	9.40
Unity Valley	5.23	2.67	6	9	9.01
Moneague	5.20	2.95	7	7	9.90
Claremont	5.20	1.30	22	3	10.40
Albion, St. Ann	5.62	2.83	6	10	9.74
Averham Park	3.53	1.00	7	5	11.85
Mean	9.75	...	...	...	...

NORTHERN DIVISION

NOV. 1918.

Greatest fall
in 24 hours

	Total fall.	Amount.		Date.	Days on which 0.01 or more fell.	Average
		In.	In.			
	In.	In.	In.	In.	In.	In.
Port Maria	1.88	0.41	21	12	10.69	...
Ocho Rios	1.50	0.70	20	4	7.73	...
Bogue, Ocho Rios	1.67	0.40	25	6	16.14	...
Rockfield	2.78	...	...	10	...	...
Drax Hall	2.40	0.50	25	10	10.04	...
Liberty Hill	2.53	0.54	21	9	12.96	...
St. Ann's Bay	1.74	0.35	22	11	9.00	...
Seville	2.00	0.70	9	7	9.80	...
Richmond Estate	2.44	0.76	16	7	...	...
Llandovery	2.86	1.20	15	5	9.16	...
Runaway Bay	2.33	1.04	15	5	...	...
Brown's Town	2.20	1.14	6	6	10.58	...
Alexandria	1.90	0.69	23	6	...	...
Walt Town, St. Ann	3.40	1.30	1	8	...	...
Home Castle	1.40	0.60	25	4	7.35	...
Richmond Pen	2.15	0.65	7	...	5.90	...
Mahogany Hall	...	...	...	...	...	...
Bryan Castle	1.40	0.85	5	5	6.40	...
Braco	2.40	0.90	10	8	5.88	...
Arcadia	1.40	0.40	5	7	6.47	...
Lancaster	2.69	0.70	8	9	6.34	...
Harmony Hall	2.26	0.50	9	8	5.75	...
Vale Royal	...	...	...	...	...	...
Colchis Pen	2.15	0.90	...	4	5.81	...
Georgia	2.20	0.65	24	5	5.84	...
Long Pond	2.04	0.82	24	7	5.52	...
Hyde Hall	2.90	1.60	24	8	4.82	...
Steelfield	2.26	0.81	24	4	5.90	...
Edingdon	2.00	0.45	24	5	5.37	...
Lottery	...	...	...	...	...	...
Falmouth	2.94	1.25	5	10	4.92	...
Florence Hall	1.62	0.54	15	4	6.86	...
Good Hope	...	...	...	...	...	...
Canaan	3.88	0.60	24	11	5.03	...
Content	3.18	1.25	5	7	4.68	...
Guildbro	3.07	0.60	21	16	5.78	...
Glasgow	...	...	...	...	...	...
Spring Estate	1.53	0.68	6	4	4.87	...
Montego Bay	1.19	0.42	23	10	4.30	...
Catherine Hall	...	...	...	...	...	...
Friendship	0.51	0.19	23	4	...	...
Retirement	1.87	0.35	21	9	...	...
King Gate	3.03	1.20	5	5	3.86	...
Blue Hole	5.55	2.00	13	7	...	...
Haughton Court	2.90	1.10	24	7	4.25	...
Unea	4.86	1.79	24	0	5.71	...
Green Island	2.28	0.90	25	5	...	...
CENTRAL SUB-DIVISION.						
Rio Magno	7.17	1.54	0	9	...	...
Headworks, Rio Cobre	1.66	1.09	3	4	4.74	...
Linstead	4.09	1.52	18	10	5.92	...
Berkshire Hall	3.47	1.20	6	10	8.22	...
Point Hill	3.12	1.29	2	5	10.16	...
Bellas Gate	3.98	1.63	3	4	...	...
Croft Hill	2.80	1.40	17	4	8.41	...
Chapelton	2.26	1.28	18	6	4.49	...
Danks Works	4.32	1.49	18	8	4.99	...
Savoy House	...	...	...	...	...	...
Crooked River	5.70	1.70	18	4	...	...
Trout Hall	...	...	...	...	...	...
Frankfield	5.49	2.10	1	4	...	...
Mean	2.48	...	...	...	...	...

WEST-CENTRAL DIVISION.		Nov., 1918.					SOUTHERN DIVISION.		Nov., 1918.				
		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.			Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
			Amount.	Date.						Amount.	Date.		
		In.	In.			In.			In.	In.			In.
Whitney	...	...	...	...	...	...	Morant Point L. H.	...	3.46	1.16	23	15	6.90
Mocho, Clarendon	...	6.03	2.60	5	4	5.10	Pleasant Hill	...	8.10	1.92	23	13	...
Spaldings	...	6.47	2.20	5	12	...	East Prospect	...	4.36	1.25	23	10	11.94
Tan-y-bryn	...	3.96	1.23	19	15	...	Morant Bay	...	2.56	1.05	23	11	6.44
Brokenhurst	...	...	...	...	...	...	Easington	...	2.30	0.92	5	9	5.35
Christiana	...	4.00	1.42	18	10	6.82	Bull Bay	...	1.77	0.95	8	4	3.71
Chudleigh	...	4.12	0.99	5	12	9.07	Bellevue	...	5.51	1.28	11	13	...
Shooter's Hill	...	5.34	2.35	1	13	9.12	Gordon Town	...	7.35	2.00	2	7	9.57
Kendal, Manchester	...	7.60	2.32	1	6	5.99	Hope Gardens	...	4.79	...	...	...	6.35
Marshall's Pen	...	4.03	1.40	19	10	6.16	King's House Gardens	...	3.15	0.80	17	6	3.31
Mandeville	...	5.09	1.43	1	12	6.29	Melrose	...	3.58	1.27	2	7	...
Carlton, Mandeville	...	5.06	1.80	9	6.29	...	Halfway Tree	...	0.87	0.21	3	5	3.66
The Hill	...	...	...	...	...	...	Lunatic Asylum	...	0.71	0.35	11	3	3.57
Fairfield, Manchester	...	3.37	0.65	1	15	6.46	Glenmore Road	...	1.41	0.55	3	7	...
Ulster Spring	...	6.30	4.00	3	4	6.49	Kingston P. W. Office	...	0.71	0.37	6	4	3.00
Freeman's Hall	...	4.09	1.60	...	7	...	Plumb Point L. H.	...	0.05	0.05	11	1	2.32
Albert Town	...	1.72	0.92	24	3	9.66	Clifton Pen	...	0.95	0.40	3	4	...
Lowe River	...	3.92	1.29	2	6	8.51	Quarantine Station	...	0.13	0.05	14	2	...
Troy	...	3.63	1.50	2	6	6.46	Spanish Town	...	1.04	0.44	22	4	3.56
Windsor Pen, Trel.	...	1.53	0.55	25	7	6.03	Hog Hole, St. Catherine...	...	3.82	1.64	4	7	4.34
Medina	...	3.29	1.05	3	7	...	Hartlands	...	2.45	0.75	4	8	9.65
Balaclava Police Station	...	5.20	1.84	2	9	5.91	Belmont, Guanaboa Vale	...	2.27	0.83	11	9	...
Siloah	...	1.15	0.25	18	6	8.45	Old Harbour	...	1.54	0.76	5	4	3.60
Appleton Estate	...	5.81	1.76	2	17	6.04	May Pen	...	2.90	1.10	5	7	4.51
Maggotty	...	5.24	1.05	23	10	6.80	Maysville	...	4.65	1.23	5	9	...
Butlers	...	...	...	...	...	...	Dunkley's, Vere	...	...	...	...	...	...
Dromilly Pen	...	3.32	0.80	25	7	...	Dry River "	...	1.66	0.50	5	6	7.48
Spring Vale	...	2.43	1.43	3	5	6.08	Denbigh	...	...	...	...	...	...
Garland	...	...	...	...	...	...	Toll Gate	...	3.09	0.76	15	9	...
Mocho, Catadupa	...	...	...	...	...	...	Woodleigh	...	...	...	...	...	...
Springfield, St. Elizabeth	...	6.82	1.32	23	13	...	New Yarmouth	...	1.83	0.69	21	5	2.66
Chesterfield, St. James	...	4.05	1.00	2	5	...	Exeter, Vere	...	1.65	0.50	4	7	...
Catadupa Rly. Station	...	...	...	...	...	...	Milk River	...	2.05	0.90	4	3	4.26
Kempshot	...	3.62	0.70	24	15	6.18	Clarendon Pk. Ry. St.	...	...	...	...	...	...
Cambridge, St. James	...	2.51	1.00	3	7	...	Retrieve	...	2.15	0.50	21	10	...
Ducketts	...	4.08	1.00	15	5	...	Hog Hole, S. Manch.	...	4.64	1.28	4	8	...
New Market, Police St.	...	7.49	2.10	5	12	...	Stone's Hope	...	6.05	2.04	5	8	5.01
The Bog, New Market	...	...	...	...	...	...	Newport, Manchester	...	4.47	1.50	14	17	6.29
Kew Park	...	...	...	...	...	...	Great Valley, Man.	...	3.01	0.83	4	14	4.24
Montpelier	...	2.72	1.24	23	6	...	Alligator Pond	...	2.91	1.18	5	9	2.97
Burnt Ground	...	3.69	1.35	23	9	4.99	Southfield, St. Elizabeth	...	3.45	0.65	17	10	...
Knockalva	...	6.61	2.08	24	12	...	Lititz	...	5.69	2.29	5	16	...
Ramble	...	...	...	...	...	...	Torrington	...	6.19	1.35	6	13	6.99
Petersville	...	3.90	1.07	23	8	6.49	Bethlehem, St. Eliz.	...	8.03	1.91	4	15	7.32
Darliston	...	6.11	1.70	23	8	7.48	Santa Cruz	...	7.18	1.50	1	13	5.89
Bluefields	...	6.06	0.84	23	13	7.56	Pedro Plains Police St.	...	2.69	1.20	10	6	4.01
Whithorn	...	3.34	1.50	22	6	6.92	Mountainside	...	8.54	2.92	3	9	...
Water Works Pen	...	4.98	2.00	23	11	...	Black River	...	2.23	0.80	22	7	4.53
Great Valley, Han.	...	5.35	2.60	3	4	5.81	Font Hill	...	...	...	...	...	...
Fontabelle, Westm.	...	6.38	1.20	15	10	3.03	Mount Edgecombe	...	2.78	0.60	15	10	5.00
Belleisle	...	...	...	...	...	...	Sweet River	...	...	...	...	...	...
Morgan's Bridge	...	9.34	3.00	3	5	5.30	Windsor, Sav.-la-mar	...	4.65	1.65	24	10	3.64
King's Vale Police St.	...	3.25	0.65	13	8	5.46	Orchard	...	5.05	2.17	24	12	...
							Sav.-la-mar	...	2.36	0.67	22	7	3.10
							Little London	...	4.20	1.50	15	8	...
							Retreat	...	6.22	1.65	15	9	4.79
							Negril Point L.H.	...	4.55	2.00	15	8	3.21
Mean	...	4.57	...	...	...	...	Mean	...	3.31	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
Based upon the "Average" Stations only.

SHOCKS OF EARTHQUAKE IN NOV., 1918

DIVISIONAL AND ISLAND RAINFALL.	NOVEMBER.		Date.	Standard Time (Approx.)		Inten- sity.	Notes: where felt, etc.
	1918.	Average.		hr	min.		
	In.	In.					
North-Eastern Division	...	9.75	11	0	0 a m		Pt. Antonio, Moore Town and Hope Bay. No record at Mt Holstein.
Northern	...	2.48					
West-Central	...	4.57					
Southern	...	3.31					
The Island	...	5.03					

The rainfall was uniform and light; only a few stations at the West end recording more than their average fall. 26.28 inches fell at Greenvale in the N.E. division and 0.05 inches at the Plumb Point L.H. 0.20 inches of hail fell at the Negril Point L.H. on the 21st.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

SEP 6 1919



JAMAICA

WEATHER REPORT

FOR THE MONTH OF

DECEMBER, 1918.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part racto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range.
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House	8	29.977	29.938	78.5	81.3	82.7	76.9	5.8	84.5	1*	65.0	29	19.5
Kingston	24	29.958	29.900	70.9	83.8	87.5	70.3	17.2	91.4	10	65.6	27	24.8
Negril Point Light House	33	29.965	29.905	73.2	82.0	86.4	70.5	15.9	89.4	9	66.0	29	23.4
Castleton Gardens	496	..	..	67.5	80.7	84.6	66.5	18.1	90	14	60	23	30
Hope Gardens†	668	29.986	29.916	69.2	83.8	87.3	66.0	21.3	91	11	63	1	28
Bavinton, Stony Hill**	1,349	29.976	29.897	66.6	77.4	80.5	65.1	15.4	84.0	14	61.0	27	23.0
Stony Hill Indus. School	1,400	..	..	..	..	..	..	..	..	..	..	..	..
Kempshot	1,773	29.974	29.926	69.0	73.2	76.7	67.7	9.0	82.1	28	65.0	29	17.1
Hill Gardens	4,900	25.261	25.226	62.5	64.7	67.6	55.0	12.6	72	18	53	24	19

STATIONS	Eleva- tion.	Dew Point and Hu- midity.				Rainfall. in.	Wind per diem. miles.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.					7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.				
	ft.	°	°					m.	m.	L.	M.	U.	L.	M.	U.		
Morant Pt. Light House	8	71.2	74	72.4	75	4.15	336	NE	15	NE	16	3.6	1.3	0.6	3.0	1.9	0.5
Kingston	24	66.6	86	70.5	65	0.57	162	N	4.4	SE	13.3	2.5	1.2	0.2	4.0	1.6	0.5
Negril Point Light House†	33	67.4	82	70.1	66	1.43	200	NE	8.0	Var.	9.7	2.6	1.0	0.5	1.6	4.6	0.3
Castleton Gardens	496	65.5	93	70.9	71	8.57	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	62.7	81	68.6	60	1.29	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	63.7	90	68.4	74	1.25	..	NE	1.6	NNW	3.9	3.6	1.3	0.3	4.9	2.3	0.7
Stony Hill Indus. School	1,400	..	..	..	..	..	..	E	6.9	E	4.4	3.4	0.1	1.6	1.9	3.8	0.6
Kempshot	1,773	65.4	89	68.3	85	2.02	208	E	6.9	E	4.4	3.4	0.1	1.6	1.9	3.8	0.6
Hill Gardens	4,900	57.8	83	55.8	89	3.51	..	..	..	..	..	..	..	..	..	..	..

* and on other days.

† Hope Gardens. Bar. read at 9 a.m. and 3 p.m.

‡ Negril Point Light House.

Wind 11 p.m.

NE

8.0

** Bavinton, Stony Hill.

Mean Min. temp. on grass

61.5

Earth temp. 1 ft. below surface

74.6

" 4ft. " "

75.6

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending his report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.		DEC. 1918.									
		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.					
			Amount	Date.							
		In.	In.			In.					
Manchioneal	...	8.06	1.20	14	15	8.02					
Spring Valley	...	9.81	1.15	6	21	11.11					
Bath	...	10.98	2.22	5	24	8.80					
Priestman's River	...	6.49	1.35	13	6	...					
Moore Town	...	17.15	2.60	31	15	25.39					
Port Antonio	...	10.67	1.52	11	19	13.78					
Fellowship	...	20.57	2.47	13	30	19.92					
Johnson River Bridge	...	3.66	1.33	14	22	5.53					
Shrewsbury	...	...	...	...	...	...
Cedar Valley, St. Thos.	...	1.90	0.40	7	6	5.52					
Farm Hill	...	6.35	1.75	30	6	10.94					
Hill Gardens	...	3.51	1.47	30	7	10.73					
Chepstowe	...	10.03	6.00	6	9	...					
Spring Garden	...	7.94	5.00	6	7	...					
Buff Bay	...	9.49	4.07	6	17	11.81					
Greenvale	...	...	...	...	...	...
Belvedere, Portland	...	17.35	8.94	6	14	...					
Mt. Holstein	...	13.49	3.94	5	26	17.04					
Irish Town	...	1.38	0.75	30	3	4.28					
Rose Hill	...	1.56	0.72	16	3	...					
Hardware Gap	...	4.04	...	...	...	6.86					
Stony Hill Ind. School	...	0.16	0.16	30	1	4.16					
Castleton Gardens	...	8.57	2.70	31	11	12.92					
Lawrence Tavern	...	1.80	0.68	28	6	4.48					
Cedar Valley, Red Hill	...	2.41	0.44	21	7	...					
Zion Hill	...	2.21	0.75	6	6	...					
Agualta Vale	...	17.87	11.93	6	17	9.65					
Water Valley	...	23.32	11.60	6	17	7.97					
Platfield	...	5.95	4.00	5	11	...					
Richmond, St. Mary	...	9.79	5.13	6	13	9.50					
Highgate	...	...	...	...	...	...
Hampstead, St. Mary	...	19.61	5.37	6	17	13.35					
Guy's Hill	...	8.91	2.77	7	15	...					
Lucky Hill	...	15.77	6.94	6	12	...					
Rio Hoe	...	7.59	3.24	6	11	9.10					
Unity Valley	...	5.04	1.71	6	13	7.66					
Moneague	...	7.99	2.06	6	14	7.60					
Claremont	...	11.10	2.50	6	7	8.49					
Albion, St. Ann	...	4.70	1.66	6	12	8.19					
Averham Park	...	9.06	2.45	5	8	10.41					
Mean	...	9.17	...	...	...	...	
CENTRAL SUB-DIVISION.											
Rio Magno							8.95	2.40	7	6	...
Headworks, Rio Cobre							1.90	0.52	8	9	2.05
Linstead							3.88	3.70	5	3	3.70
Berkshire Hall							3.69	1.44	6	11	4.28
Point Hill							4.17	1.60	6	6	5.92
Bellas Gate							2.10	1.50	7	3	...
Croft Hill							0.88	0.46	1	3	2.88
Chapelton							1.25	0.21	7	8	2.47
Danks Works							0.62	0.24	5	8	2.57
Savoy House							...	...	...	...	...
Crooked River							0.45	0.45	5	1	...
Trout Hall							...	...	...	...	...
Frankfield							1.28	1.00	5	4	...
Mean							5.25	...	...	...	...

WEST-CENTRAL DIVISION.	DEC., 1918.					SOUTHERN DIVISION.	DEC., 1918.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In
Whitney ...	...	...	...	...	...	Morant Point L. H. ...	4.15	0.75	14	22	6.41
Mocho, Clarendon ...	2.55	1.90	7	3	2.80	Pleasant Hill ...	9.59	1.33	14	15	...
Spaldings ...	1.50	0.46	5	14	...	East Prospect ...	4.78	0.85	13	21	4.87
Tan-y-bryn ...	0.99	0.21	5	11	...	Morant Bay ...	3.00	0.43	5	20	4.52
Brokenhurst ...	2.78	0.80	12	10	3.80	Easington ...	1.59	0.68	28	8	3.31
Christiana ...	1.17	0.59	5	7	3.68	Bull Bay ...	0.63	0.48	23	2	1.75
Chudleigh ...	1.17	0.35	5	10	3.18	Bellevue ...	1.24	0.41	23	11	...
Shooter's Hill ...	1.67	1.11	7	9	3.09	Gordon Town ...	1.03	0.75	25	2	3.37
Kendal, Manchester ...	2.06	1.83	7	3	2.92	Hope Gardens ...	1.29	...	...	...	2.83
Marshall's Pen ...	2.32	1.54	7	6	3.66	King's House Gardens ...	0.00	...	...	...	1.90
Mandeville ...	1.99	1.10	7	17	3.62	Melrose ...	0.52	0.24	31	4	...
Carlton, Mandeville ...	1.97	1.12	7	10	3.62	Halfway Tree ...	0.67	0.25	23	3	2.12
The Hill ...	...	...	...	...	...	Lunatic Asylum ...	0.29	0.18	6	5	2.03
Fairfield, Manchester ...	1.40	0.42	7	9	2.94	Glenmore Road ...	0.61	0.28	6	6	...
Ulster Spring ...	3.15	2.45	6	2	4.26	Kingston P. W. Office ...	0.57	0.16	7	10	1.78
Freeman's Hall ...	...	...	...	...	...	Plumb Point L. H. ...	0.80	0.25	15	7	1.60
Albert Town ...	1.75	1.75	6	1	4.59	Clifton Pen ...	0.38	0.38	28	1	...
Lowe River ...	2.40	2.00	10	2	3.61	Quarantine Station ...	0.90	0.39	23	5	...
Troy ...	1.55	0.50	16	5	3.58	Spanish Town ...	1.23	0.39	23	6	2.08
Windsor Pen, Trel. ...	2.46	1.12	5	5	4.51	Hog Hole, St. Catherine...	3.37	0.83	7	10	2.83
Medina ...	0.30	0.30	16	1	...	Hartlands ...	2.04	0.84	23	5	2.19
Balaclava Police Station...	1.01	0.57	28	6	2.42	Belmont, Guanaboa Vale ...	1.75	0.37	19	10	...
Siloah ...	1.85	1.60	12	2	3.59	Old Harbour ...	1.98	0.71	18	8	2.71
Appleton Estate ...	2.63	2.20	12	4	3.04	May Pen ...	0.95	0.70	28	2	2.40
Maggotty ...	3.87	1.70	12	5	2.98	Maysville ...	0.90	0.60	28	2	...
Butlers ...	...	...	...	...	...	Dunkley's, Vere ...	...	...	...	...	...
Dromilly Pen ...	4.55	3.40	6	5	...	Dry River " ...	1.18	0.53	23	6	2.16
Spring Vale ...	6.37	2.00	6	5	6.27	Denbigh ...	...	...	...	...	...
Springfield, St. Elizabeth ...	1.15	0.17	10	11	...	Toll Gate ...	0.90	0.40	7	4	...
Chesterfield, St. James ...	0.95	0.50	5	3	...	Woodleigh ...	0.70	0.70	28	1	...
Kempshot ...	2.92	1.46	6	9	5.40	New Yarmouth ...	1.46	0.37	23	6	1.97
Cambridge, St. James ...	0.70	0.40	6	5	...	Exeter, Vere ...	1.35	0.60	19	6	1.97
Ducketts ...	0.90	0.45	5	3	...	Milk River ...	2.35	1.15	23	3	2.48
New Market, Police St. ...	1.11	0.23	22	8	...	Clarendon Pk. Ry. St. ...	...	...	...	...	...
The Bog, New Market ...	1.95	0.83	22	7	...	Retrieve ...	1.06	0.50	7	5	...
Kew Park ...	...	...	...	...	...	Hog Hole, S. Manch. ...	2.29	1.10	7	5	...
Montpelier ...	1.91	0.78	6	6	...	Stone's Hope ...	0.87	0.41	18	3	2.85
Burnt Ground ...	2.14	0.55	6	7	3.43	Newport, Manchester ...	1.56	0.33	7	12	4.11
Knockalva ...	1.42	0.76	6	5	...	Great Valley, Man. ...	2.70	0.76	12	9	2.77
Petersville ...	4.23	1.95	23	5	2.72	Alligator Pond ...	2.90	0.70	18	11	2.70
Darliston ...	2.83	1.40	17	6	3.47	Southfield, St. Elizabeth ...	1.31	0.47	15	7	...
Bluefields ...	2.78	0.47	1	10	2.74	Lititz ...	0.50	0.35	28	4	...
Whithorn ...	0.28	0.13	22	3	2.94	Torrington ...	1.21	0.38	18	5	2.72
Water Works Pen ...	0.95	0.25	20	6	...	Bethlehem, St. Eliz. ...	1.35	0.84	18	8	2.44
Great Valley, Han. ...	...	...	...	...	...	Santa Cruz ...	2.79	1.74	7	5	2.77
Fontabelle, Westm. ...	1.45	1.06	15	5	3.20	Pedro Plains Police St. ...	...	...	...	...	...
Morgan's Bridge ...	2.20	2.20	15	1	3.28	Mountainside ...	...	...	...	...	...
King's Vale Police St. ...	1.75	0.80	15	4	3.33	Black River ...	2.94	2.17	7	7	2.27
						Font Hill ...	0.90	0.85	7	2	2.08
						Mount Edgecombe ...	3.43	1.56	12	9	2.44
						Sweet River ...	0.80	0.48	15	4	2.46
						Windsor, Sav.-la-mar ...	0.33	0.20	15	3	2.48
						Orchard ...	0.37	0.21	14	5	...
						Sav.-la-mar ...	0.29	0.13	20	4	2.36
						Little London ...	1.40	0.60	12	3	...
						Retreat ...	2.46	1.05	11	6	2.41
						Negril Point L.H. ...	1.43	0.73	23	8	2.12
Mean ...	2.30	...	...	...	...	Mean ...	1.68	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	DECEMBER.	
	1918.	Average.
	In.	In.
North-Eastern Division	9.17	10.28
Northern "	5.25	5.45
West-Central "	2.30	3.60
Southern	1.68	2.61
The Island	4.60	5.48

SHOCKS OF EARTHQUAKE IN DEC, 1918.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
	hr. min.		
	10 35 p.m.	III	Mt. Holstein; S.E. and N.W. .045; N. and S. .030 Loud sound.
		I	Halfway Tree, Unity Valley and Montego Bay.

The heaviest fall was 23.32 inches at Water Valley and the lightest 0.16 inch at Stony Hill; both stations being in the North-eastern division.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

THE ISLAND RAINFALL, 1918.

Month.	N.E.	N.	W.C.	S.	The Island.
	In.	In.	In.	In.	In.
Jan.	1.27	0.70	0.90	0.66	0.88
Feb.	6.20	1.98	3.15	2.17	3.38
Mar.	4.66	2.59	11.68	4.36	5.82
Apr.	6.13	4.55	9.31	5.52	6.38
May	17.51	7.96	15.50	9.26	12.56
June	6.41	3.68	6.58	3.56	5.06
July	3.95	2.38	5.83	2.25	3.60
Aug.	7.23	4.68	10.57	6.58	7.26
Sept.	5.62	4.13	8.46	3.44	5.41
Oct.	9.80	6.04	13.60	6.32	8.94
Nov.	9.75	2.48	4.57	3.31	5.03
Dec.	9.17	5.25	2.30	1.68	4.60
Totals	87.70	46.42	92.45	49.11	68.92

MAGNETIC VARIATION.

Kempshot.	Dec. E.
1912	2° 28
1913	30
1914	31
1915	36
1916	35
1917	35
1918	2 36

METEOROLOGICAL RESULTS for the year 1918.

KINGSTON, JAMAICA. Mean results for the year 1918. Elevation, 24 feet.

Month.	Bar Pressure.		Temperature.					Extremes for the Month.			Dewpoint and humidity.			Miles of Wind per diem.		
	7 a.m.	3 p.m.	Mean.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Min.	Range.	7 a.m.	3 p.m.		Rain-fall.	
January	29.964	29.921	75.0	68.1	82.5	84.5	67.1	17.4	91.5	56.9	34.6	62.8	66.6	59	0.58	203.5
February	30.004	29.958	75.3	68.3	82.3	85.0	67.6	17.4	88.8	64.6	24.2	63.6	67.3	61	0.52	174.7
March	29.993	29.950	75.3	69.3	80.8	85.3	67.6	17.7	87.5	65.3	22.2	64.6	68.0	66	1.02	169.6
April	29.927	29.878	77.5	73.2	82.2	86.1	70.4	15.7	88.4	67.4	21.0	68.3	70.3	68	3.16	198.9
May	29.935	29.899	77.8	75.0	80.5	86.3	71.2	15.1	90.6	68.6	22.0	70.3	71.8	75	3.44	166.9
June	29.921	29.890	79.7	76.5	84.0	87.6	72.8	14.8	92.0	69.6	22.4	70.6	71.5	66	0.84	212.7
July	29.951	29.911	81.4	77.3	86.8	90.0	73.5	16.5	92.7	70.6	22.1	69.7	71.7	61	0.24	249.7
August	29.949	29.909	81.3	77.1	86.4	90.1	73.6	16.5	94.2	69.8	24.4	70.4	72.7	65	2.87	220.5
September	29.913	29.867	81.3	77.5	85.7	90.0	73.9	16.1	91.9	71.2	20.7	71.3	73.5	67	0.30	188.9
October	29.884	29.827	80.0	75.8	84.1	88.5	73.7	14.8	92.3	71.6	20.7	71.3	73.7	71	2.17	147.8
November	29.900	29.848	78.0	71.8	84.3	87.3	70.7	16.6	90.3	66.1	24.2	67.8	71.3	65	0.71	161.7
December	29.958	29.900	77.6	70.9	83.8	87.5	70.3	17.2	91.4	66.6	24.8	66.6	70.5	65	0.57	161.5
Total Means	29.942	29.896	78.4	73.4	83.6	87.3	71.0	16.3	91.0	67.4	23.6	68.1	70.7	66	16.42	188.0

Month.	Wind from and miles per hour.			Clouds in tenths of the sky.						Weather Conditions.			
	7 a.m.		3 p.m.	11 p.m.		Lower.		Middle.			Upper.		
	Direction	m/s.	Direction	m/s.	Direction	m/s.	7 a.m.	3 p.m.	7 a.m.		3 p.m.		
												7 a.m.	3 p.m.
January	NNE	6.2	SE	14.9	NE by N	6.4	1.6	1.4	0.7	1.6	1.2	0.5	Fine on 19 days. Rainfall about one half the average. "Norther" on 1st, 2nd, 4th, and 5th. Sea breeze continued till late on 11th, 16th, and 17th. Humidity 4 per cent. below the mean.
February	N by W	4.6	SE	14.3	N by E	4.4	2.2	3.1	1.4	2.2	0.0	0.4	Fine on 10 days. Rainfall about three-fourths the average. SE squalls on 9th, 14th and 28th. Sea breeze continued till late on 14th. Humidity 1 per cent. below the mean.
March	N by E	4.6	SE	13.2	NNE	4.3	1.0	4.6	0.2	2.1	0.3	0.6	Fine on 11 days. Rainfall about the average. SE squall on 3rd. Thunderstorm on 14th and 22nd. Humidity 2 per cent. above the mean.
April	N by E	3.6	SE	14.6	ENE	4.9	1.0	3.4	1.1	3.0	0.8	0.5	Fine on 10 days. The rainfall was three times the average therefore affecting considerably, the percentage of Humidity. Dist. lightning on several days. T. storms on 7th, 8th, 11th, 14th and 16th. Sea breeze throughout nights of 18th and 24th.
May	NNE	5.0	SE by E	10.9	N by W	3.6	2.2	5.9	0.8	1.2	2.5	2.2	Fine on 3 days. Rainfall three-fourths the average. "Norther" on 5th and 7th. Dist. lightning on several days. T. storms on 10th, 11th, 12th, 13th, 18th, 19th and 22nd. Sea breeze till late on 24th. Humidity 6 per cent. above the mean.
June	ENE	5.7	SE	15.8	E	4.9	1.6	2.7	1.1	1.6	2.1	3.3	Fine on 12 days. Rainfall about one-fifth the average. Dist. lightning frequently. T. storms on 10 days. Squalls on 12th, 23rd and 29th. Sea breeze continued all night on 21st and 22nd.
July	NE by N	5.5	SE	18.9	N by E	4.2	0.3	0.6	0.8	1.5	1.8	3.7	Rainfall very deficient being only about 13 per cent. of the average. Fine generally. Dist. lightning and T. storms frequently. Rainsqualls to E on 13th and SE squall 36 m.p.h., 4.40 a.m. on 19th. Sea breeze till late on 10 nights. Humidity somewhat below the mean.
August	NNE	4.6	SE	17.4	NNE	4.8	0.4	2.5	1.1	1.3	3.0	2.4	Fine on 21 days. Rainfall about three-fourths the average. Dist. lightning and T. storms very frequently. Disturbances passed S of Island on 3rd and 24th. Squally on 24th. Humidity somewhat below the mean.
Sept.	NNE	4.0	SE	14.1	NE	5.1	0.1	2.8	0.7	1.9	2.6	2.3	Fine on 16 days. Rainfalls very deficient being only about 7 per cent. of the average. Dist. lightning and T. storms very frequently. SE rainsquall on 19th. Sea breeze till late on 3 nights. Humidity 2 per cent. below the mean.
October	N by E	3.9	SE by E	10.1	N by E	4.1	1.3	4.4	0.5	0.7	2.9	3.2	Fine on 3 days. Rainfall about one-fourth the average. Lightning and thunderstorms very frequently. Humidity one per cent. above the mean.
Nov.	N by E	4.5	SE	10.9	N by E	5.0	1.0	2.1	1.2	3.2	0.5	1.1	Fine on 9 days. Rainfall about one-fourth of the average. "Norther" on 8th and 19th. Lightning and thunderstorms on 8 days. Humidity one per cent. above the mean.
December	N by E	4.4	SE	13.3	N	4.0	2.5	4.0	1.2	1.6	0.2	0.5	Fine on 13 days. Rainfall 32 per cent. of the average. Distant lightning and T. storms on 6 days. Squally on 14th and 15th. Humidity one per cent. above the mean.
Means	NNE	4.7	SE	14.0	NNE	4.6	1.3	3.1	0.9	1.8	1.5	1.7	Rainfall 46 per cent. of the average. Total No. of rainy days 73. Mean Temperature 0.4 degree below the average. Max. Range temperature 23.1 degree on 27th February. Min. Range Temperature 2.9 degree on 22nd May.

1.05
4

SEP 6 1919

No. 491.



JAMAICA

W E A T H E R R E P O R T

FOR THE MONTH OF
JANUARY, 1919.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part racto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.			
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.
		in.	in.	°	°	°	°	°	°		°	
Morant Pt. Light House	8	29.960	29.924	77.0	79.9	81.4	75.8	5.6	83.0	8*	72.0	3*
Kingston	24	29.941	29.892	70.0	83.6	85.7	69.4	16.3	88.9	20	65.3	5
Negril Point Light House	33	29.945	29.908	71.4	80.9	83.3	68.9	14.4	87.5	7	63.6	20
Castleton Gardens	496	..	..	66.7	80.7	81.1	65.8	15.3	87	18*	57	5
Hope Gardens†	668	29.976	28.837	66.5	81.3	85.7	64.7	21.0	90	7*	62	6
Bavinton, Stony Hill**	1,349	29.955	29.886	65.6	76.6	79.2	64.4	14.8	8.2	8*	59.5	5
Stony Hill Indus. School	1,400	..	..	..	..	..	..	..	..	..	..	..
Kempshot	1,773	29.955	29.911	66.6	71.8	74.9	63.1	8.8	79.4	10	62.8	6
Hill Gardens	4,900	25.297	25.223	60.8	63.3	65.8	51.0	14.8	68	20	52	20

STATIONS	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		°	°	in.	miles.			m.	m.	L.	M.	U.	L.	M.	U.		
Morant Pt. Light House	8	70.0	79	70.2	72	7.32	315	NE	13	NE	15	4.0	1.5	0.2	3.1	2.3	0.1
Kingston	24	66.2	88	69.7	63	2.17	174	N	5.7	SE	11.6	2.1	1.1	0.3	2.3	2.8	0.4
Negril Point Light House†	33	65.8	86	69.9	69	2.83	247	NE	10.6	N	12.5	2.0	0.8	0.6	1.4	4.5	0.4
Castleton Gardens	496	63.1	87	70.1	69	5.19	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	62.7	90	66.8	62	2.84	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	63.4	92	67.1	72	28.3	..	N	2.3	NNW	4.9	4.0	1.2	0.3	4.5	2.6	0.3
Stony Hill Indus. School	1,400	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kempshot	1,773	64.3	92	66.2	82	3.63	166	E	5.0	ENE	4.1	3.9	0.2	0.5	4.2	2.7	0.3
Hill Gardens	4,900	57.8	89	59.2	86	6.81	..	..	..	..	..	..	..	..	..	..	..

* and on other days.

Negril Point Light House.

Wind 11 p.m.

† Hope Gardens.

Bar. read at 9 a.m. and 3 p.m.

NE

9.2

** Bavinton, Stony Hill.

Mean Min. temp. on grass

61.3

Earth temp 1 ft. below surface

73.2

" 4ft. " "

74.0

THE RAINFALL.

The first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Station are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central Sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	JAN. 1919.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	in.	In.			In.
Manchioneal ..	14.43	2.64	11	19	5.94
Spring Valley ..	16.87	3.20	10	24	8.41
Bath ..	8.25	2.00	11	17	6.26
Priestman's River ..	..	..	..	..	..
Moore Town ..	5.87	1.75	26	12	18.55
Port Antonio ..	..	..	..	..	..
Fellowship ..	14.45	2.24	17	20	14.16
Johnson River ..	..	..	..	..	..
Bridge ..	6.66	1.82	8	11	3.59
Shrewsbury ..	..	..	..	..	..
Cedar Valley, St ..	..	..	..	..	..
Thos. ..	10.58	4.70	11	7	4.46
Farm Hill ..	12.35	7.10	11	4	6.96
Hill Gardens ..	6.81	2.50	11	10	7.09
Chepstowe ..	12.15	2.00	15	..	..
Spring Garden ..	11.22	2.28	8	24	..
Buff Bay ..	11.36	3.26	7	23	10.22
Greenvale ..	11.61	3.82	16	11	21.07
Belvedere, Portland ..	18.14	7.50	16	11	..
Mt. Holstein ..	7.51	1.63	11	26	14.03
Irish Town ..	3.85	1.15	10	5	2.51
Rose Hill ..	4.91	2.10	11	5	..
Hardware Gap ..	9.36	..	..	..	4.95
Stony Hill Ind. ..	..	..	..	..	..
School ..	2.95	0.98	10	8	3.30
Castleton Gardens ..	5.19	1.12	31	13	8.87
Lawrence Tavern ..	3.31	1.20	11	9	1.95
Cedar Valley, Red ..	..	..	..	..	..
Hills ..	3.71	1.07	9	..	..
Zion Hill ..	1.10	0.50	11	3	..
Agualta Vale ..	13.87	4.25	16	19	7.20
Water Valley ..	19.35	7.20	16	24	9.14
Platfield ..	5.45	0.95	30	15	..
Richmond, St. Mary ..	9.66	4.61	16	20	6.18
Highgate ..	..	..	..	..	..
Hampstead, St. Mary ..	20.44	5.72	16	29	10.30
Guy's Hill ..	..	..	..	..	..
Lucky Hill ..	..	..	..	..	..
Rio Hoc ..	5.22	2.05	16	11	5.47
Unity Valley ..	5.07	1.00	17	12	4.69
Moneague ..	5.00	1.32	16	14	4.18
Claremont ..	5.34	0.96	16	12	6.12
Albion St. Ann ..	5.93	1.46	3	16	5.15
Averham Park ..	5.04	2.00	16	12	6.88
Mean ..	9.12	..	..	..	..

NORTHERN DIVISION.	JAN., 1919.				
	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			In.
Port Maria ..	6.09	2.20	7	17	6.72
Ocho Rios ..	7.91	2.00	16	8	5.42
Bogue, Ocho Rios ..	7.34	2.50	17	13	5.96
Rockfield ..	8.34	3.50	16	18	..
Drax Hall ..	7.02	1.55	15	14	4.84
Liberty Hill ..	9.69	2.70	15	14	7.23
St. Ann's Bay ..	6.21	1.66	11	12	5.01
Seville ..	9.17	1.70	16	10	5.61
Richmond Estate ..	8.47	2.20	15	13	6.37
Llandoverly ..	9.52	2.75	11	12	6.62
Runaway Bay ..	7.48	2.80	11	8	..
Brown's Town ..	9.98	2.20	16	9	5.41
Alexandria ..	2.70	0.96	16	12	..
Watt Town, St. Ann ..	3.90	1.28	9	5	..
Home Castle ..	10.30	2.60	11	12	5.39
Richmond Pen ..	5.46	2.10	11	7	3.48
Bryan Castle ..	6.89	1.36	16	10	4.66
Braco ..	5.35	1.40	16	10	4.17
Arcadia ..	8.70	1.80	11	11	4.38
Lancaster ..	5.44	1.25	16	11	4.59
Harmony Hall ..	4.30	1.52	16	10	3.97
Vale Royal ..	5.36	1.23	18	14	4.94
Colchis Pen ..	2.76	1.20	..	6	3.29
Georgia ..	5.25	0.92	16	11	3.96
Long Pond ..	4.99	1.30	16	10	..
Hyde Hall ..	8.80	1.20	16	12	..
Steelfield ..	4.92	1.12	16	10	..
Etingdon ..	8.70	0.90	16	12	..
Springfield ..	4.96	..	..	..	..
Falmouth ..	4.86	1.43	8	9	3.60
Florence Hall ..	5.10	1.54	11	8	4.61
Good Hope ..	5.64	1.12	8	9	..
Canaan ..	3.88	1.00	6	10	3.08
Content ..	..	..	..	..	..
Gaillsbro ..	3.55	0.77	9	13	3.15
Glasgow ..	2.70	1.00	11	4	..
Spring Estate ..	3.75	1.25	10	8	4.87
Montego Bay ..	4.51	1.75	8	10	2.92
Catherine Hall ..	..	..	..	..	..
Friendship ..	3.55	1.30	9	9	..
Retirement ..	3.46	0.65	6	10	..
King Gate ..	4.64	1.20	11	6	3.94
Blue Hole ..	4.66	2.15	11	8	..
Haughton Court ..	6.45	3.45	11	7	2.34
Lucca ..	8.18	3.02	11	10	3.07
Green Island ..	6.13	1.50	9	6	..
CENTRAL SUB-DIVISION.	..	..	..	..	..
Rio Magno ..	..	..	..	..	..
Headworks, Rio ..	..	..	..	..	..
Cobre ..	3.14	1.47	9	6	1.84
Linstead ..	..	..	..	..	..
Berkshire Hall ..	3.83	1.51	8	12	2.96
Point Hill ..	..	..	..	..	..
Bellas Gate ..	..	..	..	..	..
Croft Hill ..	3.87	2.10	10	7	1.85
Chapelton ..	4.05	1.20	19	11	2.24
Danks Works ..	3.84	1.32	9	9	1.89
Crooked River ..	2.93	1.50	8	3	..
Trout Hall ..	3.07	1.15	9	7	..
Frankfield ..	4.08	2.58	9	5	..
Mean ..	6.02	..	..	..	..

WEST-CENTRAL DIVISION.	JAN. 1919.					SOUTHERN DIVISION.	JAN., 1919.				
	Total Fall	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Whitney ..	..	..	..	..	..	Morant Point L.H.	7.32	2.25	13	20	4.30
Mocho, Clarendon ..	6.20	3.70	8	2	2.30	Pleasant Hill ..	6.66	1.82	8	11	..
Spaldings ..	5.17	1.55	9	14	..	East Prospect ..	8.75	1.75	17	16	4.08
Tan-y-bryn ..	5.48	2.27	9	13	..	Morant Bay ..	7.66	1.70	8	13	2.70
Brokenhurst ..	8.13	6.10	9	12	3.12	Easington ..	3.67	1.08	10	10	1.64
Christiana ..	4.51	1.59	8	11	2.35	Bull Bay ..	2.26	0.92	10	5	0.87
Chudleigh ..	4.69	2.00	9	11	2.42	Bellevue ..	..	..	..	..	..
Shooter's Hill ..	5.34	2.55	9	11	1.96	Gordon Town ..	5.05	2.70	11	16	2.08
Kendal, Manchester ..	6.56	3.50	9	6	2.39	Hope Gardens ..	2.84	..	..	..	1.77
Marshalls Pen ..	6.48	2.71	9	7	2.87	King's House Gar.	2.15	..	..	..	1.22
Mandeville ..	8.27	3.53	9	18	3.04	Melrose ..	2.00	0.95	9	4	..
Carlton, Mandeville ..	7.24	3.13	9	9	3.04	Halfway Tree ..	2.15	0.78	8	5	1.12
The Hill ..	..	..	..	..	..	Lunatic Asylum ..	2.27	1.52	9	6	0.72
Fairfield, Manches-	..	..	..	..	..	Glenmore Road ..	2.07	1.18	9	8	..
ter ..	7.80	2.53	9	14	2.61	Kingston P.W.O.	2.17	1.52	9	8	1.02
Ulster Spring ..	8.38	2.00	11	9	3.06	Plumb Point L.H.	4.50	1.10	10	9	0.80
Freeman's Hall ..	..	..	..	..	..	Clifton Pen ..	2.32	1.20	9	5	..
Albert Town ..	..	..	..	..	..	Quarantine Station	1.36	0.15	9	6	..
Lowe River ..	12.70	1.80	14	14	3.08	Spanish Town ..	..	..	..	..	..
Troy ..	3.62	1.50	9	5	2.25	Hog Hole, St.	..	..	..	..	..
Windsor Pen, Trel.	3.97	1.10	9	10	3.13	Catherine ..	4.96	1.86	9	9	1.71
Medina ..	5.30	2.30	9	5	..	Hartlands ..	3.50	1.25	8	7	1.78
Balaclava Police	..	..	..	..	..	Belmont, Guana-	..	..	..	..	..
Station ..	5.02	2.04	9	9	1.71	boa Vale ..	3.29	1.50	7	6	..
Siloah ..	4.29	1.90	9	7	3.08	Old Harbour ..	..	..	..	..	..
Appleton Estate ..	..	..	..	..	..	May Pen ..	4.52	2.85	8	9	1.26
Magotty ..	2.08	0.81	9	4	2.72	Maysville ..	4.65	2.00	9	6	..
Butlers ..	..	..	..	..	..	Dry River, Vere ..	8.16	3.41	9	6	1.57
Dromilly Pen ..	3.35	0.60	8	9	..	Denbigh ..	..	..	..	..	..
Spring Vale ..	4.57	2.25	9	6	4.03	Toll Gate ..	5.86	2.75	9	9	..
Springfield, St. Eli-	..	..	..	..	..	Woodleigh ..	..	..	..	..	..
zabeth ..	2.61	1.40	9	10	..	New Yarmouth ..	..	3.78	9	8	1.20
Chesterfield, St.	..	..	..	..	..	Exeter, Vere ..	8.80	4.80	9	9	..
James ..	3.71	0.98	9	9	..	Milk River ..	6.57	5.56	9	4	1.50
Kempshot ..	3.63	1.05	6	15	3.98	Clarendon Pk. Ry.	..	..	..	..	..
Cambridge, St.	..	..	..	..	..	St. ..	3.47	1.85	8	7	2.64
James ..	2.54	1.06	10	6	..	Retrieve ..	4.04	1.42	9	9	..
Ducketts ..	2.93	0.77	9	7	..	Hog Hole, S. Man.	6.26	2.80	9	9	..
New Market, Police	..	..	..	..	..	Stone's Hope ..	6.36	3.23	9	7	2.68
St. ..	2.47	1.65	9	8	..	Newport, Manches-	..	..	..	..	..
The Bog, New	..	..	..	..	..	ter ..	5.16	2.54	9	12	2.66
Market ..	3.41	1.80	9	11	..	Great Valley, Man.	8.89	4.12	9	13	2.49
Kew Park ..	1.47	1.47	11	1	..	Alligator Pond ..	6.43	2.95	9	12	1.41
Montpelier ..	2.49	0.68	8	6	..	Southfield, St. Eli-	..	..	..	..	..
Burnt Ground ..	2.80	0.75	9	9	2.75	zabeth ..	7.19	2.69	9	13	..
Knockalva ..	2.05	0.56	9	7	..	Lititz ..	7.14	2.41	9	12	..
Petersville ..	2.05	1.10	9	3	2.25	Torrington ..	6.88	2.63	9	12	2.31
Darliston ..	4.21	1.72	31	12	2.93	Bethlehem, St. Eliz.	6.10	2.05	9	14	2.52
Bluefields ..	3.43	0.53	5	8	3.20	Santa Cruz ..	4.37	1.40	9	8	2.83
Whithorn ..	3.56	0.60	30	10	1.97	Pedro Plains Police	..	..	..	..	..
Water Works Pen	3.68	1.75	29	10	..	St. ..	5.73	2.50	9	11	2.04
Great Valley, Han.	..	..	..	..	..	Mountainside ..	5.08	2.39	9	7	..
Fontabelle, Westm.	4.17	1.00	8	10	1.94	Black River ..	3.51	2.72	9	6	1.63
Morgan's Bridge ..	5.40	1.40	15	9	1.82	Font Hill ..	3.15	2.30	9	6	1.88
King's Vale Police	..	..	..	..	..	Mount Edgecombe	2.33	1.41	9	11	2.04
St. ..	5.38	1.30	11	11	3.26	Sweet River ..	..	..	..	..	..
Mean ..	5.35	..	..	..	..	Windsor Sav-la-Mar	1.96	1.00	11	4	1.83
						Orchard ..	1.93	0.95	11	8	..
						Sav-la-Mar ..	2.17	1.30	10	11	1.62
						Little London ..	4.95	1.17	29	8	..
						Retreat ..	3.22	2.30	10	6	1.57
						Negril Point L.H.	2.83	1.52	10	12	1.34
						Mean ..	4.66	..	..	..	..

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

SHOCKS OF EARTHQUAKE IN JAN., 1919.

DIVISIONAL AND ISLAND RAINFALL.	JANUARY.		Date.	Standard Time (Approx.)	Inten- sity.	Notes: where felt, etc.
	1919.	Average.				
	In.	In.				
North-Eastern Division	9.12	7.15	13	3 22 p.m.	II I	Mt. Holstein; N.W. and S.E. .008; duration 22 seconds. Kingston; S.E. .001, very slight.
Northern "	6.02	3.77				
West-Central "	5.35	2.85				
Southern	4.66	1.81				
The Island	6.29	3.90				

The heaviest fall was 20.44 inches at Hampstead and the lightest 1.10 inch at Zion Hill; both stations being in the North-eastern division.

MAXWELL HALL,
Government Meteorologist.

CORRIGENDUM W.R. 490 December: 1918 p.4 Earthquake; in Date Column read 6th.

Montego Bay P.O.

Particulars of duration of sunshine recorded at Bavinton, Stony Hill, 1918. Averages in hours and tenths of an hour.

Month.	$\frac{6}{7}$	$\frac{7}{8}$	$\frac{8}{9}$	$\frac{9}{10}$	$\frac{10}{11}$	$\frac{11}{\text{noon}}$	$\frac{12}{1}$	$\frac{1}{2}$	$\frac{2}{3}$	$\frac{3}{4}$	$\frac{4}{5}$	$\frac{5}{6}$	Total.	Per ct. of possible sunshine.
January	0.2	0.8	0.9	0.9	0.7	0.5	0.5	0.6	0.7	0.7	0.3	0.0	6.8	61
February	0.3	0.7	0.7	0.6	0.5	0.4	0.4	0.4	0.5	0.4	0.4	0.0	5.3	46
March	0.5	0.9	0.9	0.8	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.0	5.4	45
April	0.4	0.9	0.9	0.8	0.5	0.4	0.3	0.3	0.3	0.2	0.3	0.2	5.5	42
May	0.4	0.7	0.8	0.7	0.4	0.2	0.1	0.2	0.3	0.2	0.3	0.2	4.5	35
June	0.4	0.8	0.8	0.8	0.6	0.5	0.3	0.4	0.5	0.4	0.5	0.3	6.3	48
July	0.5	0.9	1.0	0.8	0.6	0.6	0.4	0.5	0.4	0.4	0.5	0.3	6.9	53
August	0.5	0.9	0.9	0.8	0.7	0.5	0.4	0.4	0.5	0.5	0.5	0.3	6.9	56
September	0.5	0.8	1.0	0.9	0.8	0.6	0.5	0.4	0.4	0.4	0.4	0.1	6.8	56
October	0.3	0.9	0.9	0.8	0.6	0.4	0.3	0.3	0.2	0.2	0.1	0.0	5.0	44
November	0.2	0.8	0.9	0.8	0.8	0.6	0.4	0.4	0.5	0.4	0.3	0.0	6.1	54
December	0.1	0.7	0.8	0.8	0.6	0.3	0.3	0.5	0.4	0.4	0.2	0.0	5.1	46
Means	0.36	0.82	0.88	0.79	0.61	0.44	0.35	0.39	0.42	0.37	0.34	0.12	5.89	49

NOTES—The early morning sunshine is cut off by the mountains to the east.

There were nine sunless days, viz., January 7th, February 4th, May 5th, 21st and 22nd, August 3rd and 24th, December 12th and 23rd. There were 29 days in which 8 and under 9 hrs. sunshine was recorded, viz., 6 in January, 1 in April, 2 in May, 3 in June, 4 in July, 3 in August, 2 in September, 5 in November and 3 in December.

There were 21 days on which 9 and under 10 hrs. sunshine was recorded, viz., 5 in January, 2 in February, 2 in March, 1 in April, 2 in June, 3 in July, 5 in August and 1 in September.

There were 12 days on which 10 and under 11 hrs. sunshine was recorded, viz., 2 in February, 1 in March, 2 in July, 2 in August, 4 in September and 1 in November.

On the 21st April, 22nd June, 24th June and 8th July over 11 hrs. of sunshine was recorded.

Percentage of possible sunshine recorded for 3 years 1916-18.

1916.	1917.	1918.
46%	48½%	49%

1918.	Barometric pressure.		Air temperature.						Humidity.			Rainfall.		No. of days.	
			Means	Average maximum.	Average minimum.	Range.	Absolute maximum.	Absolute minimum.	Extreme Range.	Means.	7 a.m.	3 p.m.	Inches.		Per cent.
	7 a.m.	3 p.m.	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.		inches.
ELEVATION.															
1349 feet.															
January	29.984	29.903	70.3	79.3	62.4	16.9	83.0	54.5	28.5	76	86	66	0.18	7	3
February	30.020	29.945	70.3	78.8	63.1	15.7	82.5	60.0	22.5	80	89	70	3.44	142	17
March	30.001	29.944	69.8	78.4	63.4	15.0	81.5	60.5	21.0	81	89	73	12.66	476	23
April	29.937	29.879	72.1	85.5	65.1	15.4	83.5	61.0	22.5	83	89	76	4.50	91	20
May	29.945	29.889	72.1	79.8	66.2	13.6	84.0	64.0	20.0	87	93	80	11.15	111	23
June	29.931	29.875	74.5	82.7	67.5	15.2	88.0	65.5	22.5	82	90	73	6.86	93	19
July	29.926	29.895	77.1	87.2	68.3	18.9	91.0	66.0	25.0	74	84	63	2.06	37	11
August	29.957	29.903	77.0	86.2	68.9	17.3	90.0	66.5	23.5	74	81	66	6.04	85	13
September	29.922	29.854	76.0	84.9	69.1	15.8	88.0	67.0	21.0	82	86	75	4.64	50	15
October	29.899	29.841	73.7	82.8	67.9	14.9	86.0	67.0	19.0	89	93	86	19.69	112	26
November	29.925	29.847	72.8	81.7	65.9	15.8	84.5	63.0	21.5	80	87	73	6.70	106	14
December	29.976	29.897	71.9	80.5	65.1	15.4	84.0	61.0	23.0	82	90	74	1.25	29	14
Totals	29.959	29.889	73.1	81.9	66.1	15.8	85.5	63.0	22.5	81	88	73	77.17	99	198

Table of correlation of weather elements and sunshine recorded at Bavinton, Stony Hill, 1918. *continued*

1918.	Wind direction and velocity.				Cloud in tenths of the sky.	Radiation.					Earth Temp.		Thunder—No. of days.	Wet mist—No. of days.	
	Wind from		Wind to			Solar maximum.	Gross minimum temperature.				1 ft. below surface.	4 ft. below surface.			
	Miles per hour	Wind from	Miles per hour.	Wind to			At the surface.	Two inches above surface.	Six inches above surface.	Twelve inches above surface.					
ELEVATION.															
1349 feet.															
January	N by E	2.6	WNW	6.0	5.0	142.3	56.2	57.6	58.6	59.3	71.3	72.5	0	12	
February	NNE	2.1	N by W	4.3	6.5	144.8	57.9	59.1	59.9	60.5	72.7	73.2	0	10	
March	NNE	1.1	NE by E	3.0	6.3	147.7	57.5	58.9	59.6	60.2	73.0	72.9	8	18	
April	NNE	1.1	S by E	3.9	6.4	150.0	60.5	61.5	61.9	62.5	75.3	74.0	9	20	
May	NNE	1.0	NNE	2.4	7.4	143.6	63.0	63.8	64.1	64.6	76.2	75.0	13	17	
June	ENE	1.4	S by W	3.6	6.5	146.6	64.1	64.8	65.1	65.3	78.4	76.4	14	19	
Ju.y	NNE	1.1	NW	4.0	5.0	150.6	63.8	64.4	64.9	65.4	80.5	78.3	13	14	
August	NE	1.5	NNE	3.8	5.7	149.0	64.1	64.8	65.3	65.7	80.6	78.9	13	11	
September	ENE	1.2	S	4.0	5.5	147.7	65.1	65.5	66.0	66.4	80.4	79.0	14	22	
October	NE by E	1.4	SE	2.2	7.0	147.4	65.2	65.8	66.2	66.4	78.1	78.0	24	24	
November	NNE	1.5	N by W	4.2	5.3	147.0	61.4	62.2	62.7	63.2	75.4	76.7	8	18	
December	NE	1.6	NNW	3.9	6.6	142.6	60.5	61.5	62.2	62.7	74.6	75.6	9	20	
Totals	Means	1.5	NNW	3.8	6.1	146.6	61.6	62.5	63.0	63.5	76.4	75.9	125	205	

The Barometer pressures are reduced to the standards of Kew, 32 F., gravity at lat. 45 and mean sea level; but not corrected for diurnal variation.

The air thermometers are exposed in a Stevenson's screen; their readings have been corrected for instrumental errors.

The mean daily temperature in the fourth column has been deduced from the 7 a.m., 3 p.m., max. and min., readings according to the rule in Meteorology of Jamaica by Maxwell Hall, M.A. p. 14.

The Rainfall in column 15 is expressed in percentage of recorded averages for Stony Hill for sixteen years. See, W. R. No. 366.

The wind velocity is measured by a Robinson's Anemometer, three inch cups, arms four inches from axis to centre of cups.

The cloud averages are means of 7 a.m. and 3 p.m. observations.

The sunshine is registered by a Jordan photographic recorder.

The solar maximum temperature is measured by a black bulb thermometer in vacuo. The highest solar maximum was 158 F on July 11th, and August 17th and 25th

The lowest minimum temperatures on the grass were 48.5 F. at the surface and 50.5 F two inches above the surface on January 4th.

The earth thermometers are suspended in iron tubes sunk into the earth under short grass.

"Wet Mist" in the last column is wet mist observed at 7 a.m. in the Wag Water valley.



JAMAICA

W E A T H E R R E P O R T

FOR THE MONTH OF
FEBRUARY, 1919.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky ; the Lower clouds are for the most part racto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.					
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range.	
		ft.	in.	in.	°	°	°	°	°		°		°	
Morant Pt. Light House	..	8	29.991	29.963	77.0	81.5	82.5	75.8	6.7	84.0	14*	66.0	10*	18.0
Kingston	..	24	29.973	29.920	69.4	83.7	87.0	69.1	17.9	91.5	19	62.6	13	28.9
Negril Point Light House	..	33	29.983	29.930	71.9	82.2	84.2	69.3	14.9	88.5	26*	63.3	12	25.2
Castleton Gardens	..	496	..	..	65.1	82.1	85.6	64.1	21.5	90	26*	62	2*	28
Hope Gardens†	..	668	29.964	29.911	66.1	83.6	87.2	62.1	25.1	91	19*	59	11*	32
Bavinton, Stony Hill**	..	1,349	29.987	29.909	64.9	78.7	81.0	63.7	17.3	86.0	23	57.0	13	29.0
Stony Hill Indus. School	..	1,400	..	..	65.5	78.2	81.7	63.4	18.3	89	23	53	13	31
Kempshot	..	1,773	29.985	29.935	67.0	74.0	78.3	66.0	12.3	83.0	28	60.6	12	22.4
Hill Gardens	..	4,900	25.382	25.243	61.1	82.7	65.9	54.2	11.7	68	7*	48	15	20

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
	ft.	°	°			in.	miles.		m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House	.. 8	69.2	77	71.1	71	0.54	..	NE	14	NE	13	2.0	1.3	0.5	1.0	2.0	0.5
Kingston	.. 24	64.7	85	69.2	62	0.34	194	NNE	5.1	SE	16.4	0.5	0.5	0.8	1.0	2.6	0.2
Negril Point Light House†	.. 33	67.0	83	70.0	67	2.31	233	NE	10.0	SW	11.5	0.6	2.3	1.1	2.4	3.5	0.2
Castleton Gardens	.. 496	62.9	93	71.0	69	3.11	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	.. 668	61.2	84	65.6	54	0.74	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	.. 1,349	62.0	90	65.4	64	2.47	..	NNE	1.8	WSW	6.1	1.5	0.9	1.0	4.1	2.6	0.0
Stony Hill Indus. School	.. 1,400	62.3	89	65.9	66	2.06	..	..	..	..	..	..	..	..	..	..	..
Kempshot	.. 1,773	63.4	88	67.4	80	3.03	148	E	5.5	NE	4.6	1.2	1.0	0.6	2.8	4.6	0.0
Hill Gardens	.. 4,900	58.9	93	60.1	89	2.30	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
† Negril Point Light House. Wind 11 p.m. NE 8.8
** Bavinton, Stony Hill. Mean Min. temp. on grass 59.9
Earth temp. 1 ft. below surface 73.9
" " 4 ft. " 74.1

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central Sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; the North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

						FEB., 1919.					
NORTH-EASTERN DIVISION.						Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	
							Amount.	Date.			
						In.	In.			In.	
Manchioneal ..	1.14	0.80	20	4	6.10	2.70	1.78	9	6	5.95	
Spring Valley ..	2.54	1.45	20	8	6.56	1.16	0.46	7	3	3.85	
Bath ..	1.41	0.35	13	6	4.86	3.54	1.55	9	6	4.59	
Priestman's River ..	0.90	0.90	20	1	..	4.10	2.73	9	6	..	
Moore Town ..	2.02	1.00	23	5	14.18	Drax Hall ..	..	..	..	..
Port Antonio ..	1.96	0.79	20	7	6.19	Liberty Hill ..	6.74	3.44	8	5	3.88
Fellowship ..	1.44	0.60	20	9	11.70	St. Ann's Bay ..	5.53	2.82	9	4	4.88
Johnson River ..	..	..	..	..	..	Seville ..	..	..	..	..
Bridge ..	1.13	0.44	21	5	2.24	Richmond Estate ..	8.00	4.37	8	4	4.33
Shrewsbury ..	7.44	1.38	2	8	10.90	Llandovery ..	5.62	3.68	9	2	4.57
Cedar Valley, St. Thos. ..	0.25	0.20	13	2	2.76	Runaway Bay ..	3.81	2.31	8	4	..
Farm Hill ..	1.66	0.75	9	3	3.25	Brown's Town ..	4.09	2.18	8	4	4.74
Hill Gardens ..	2.30	0.81	10	4	4.05	Alexandria ..	2.27	1.05	9	4	..
Chepstowe ..	..	..	..	..	..	Watt Town, St. Ann ..	1.50	1.00	9	2	..
Spring Garden ..	2.84	1.15	11	8	..	Home Castle ..	6.45	3.30	8	4	3.16
Buff Bay ..	1.93	0.77	10	9	7.74	Richmond Pen ..	3.15	1.85	8	5	2.18
Greenvale ..	4.94	2.06	20	3	10.12	Bryan Castle ..	7.90	4.50	8	3	2.32
Belvedere, Portland ..	5.95	2.49	9	7	..	Braco ..	7.20	3.20	8	4	2.23
Mt. Holstein ..	1.65	0.94	9	6	7.46	Arcadia ..	9.17	4.50	9	4	2.36
Irish Town ..	1.31	0.62	9	3	1.29	Lancaster ..	9.34	3.15	7	3	2.51
Rose Hill ..	3.15	1.90	9	3	..	Harmony Hall ..	8.94	3.02	8	3	2.33
Hardware Gap ..	3.19	..	..	..	3.45	Vale Royal ..	4.65	2.07	8	3	2.72
Stony Hill Ind. ..	..	..	..	..	..	Colchis Pen ..	2.70	1.05	8	3	1.74
School ..	2.06	0.75	10	6	2.22	Georgia ..	5.40	2.65	8	3	..
Castleton Gardens ..	3.11	1.12	28	8	4.95	Long Pond ..	4.16	1.46	8	3	..
Lawrence Tavern ..	1.10	0.40	10	5	2.36	Hyde Hall ..	3.55	1.90	8	3	..
Cedar Valley, Red Hill ..	1.89	0.82	10	..	..	Steelfield ..	4.77	2.95	8	3	..
Zion Hill ..	0.58	0.48	20	2	..	Etingdon ..	4.55	2.65	8	3	..
Agualta Vale ..	3.00	1.77	9	5	4.44	Springfield ..	..	..	..	..
Water Valley ..	8.41	3.75	9	11	5.05	Falmouth ..	0.52	0.20	8	3	1.81
Platfield ..	3.03	1.40	26	5	..	Florence Hall ..	..	..	..	..
Richmond, St. Mary ..	1.17	0.45	9	7	5.31	Good Hope ..	3.87	2.50	7	4	..
Highgate ..	..	..	..	..	..	Canaan ..	2.16	0.80	7	6	2.44
Hampstead, St. Mary ..	3.38	0.72	14	10	7.14	Content ..	..	..	..	..
Guy's Hill ..	2.08	0.70	10	10	..	Guilsbro ..	2.62	1.52	9	6	..
Lucky Hill ..	1.73	0.54	9	6	..	Glasgow ..	1.95	1.35	10	2	..
Rio Hoe ..	2.89	2.37	9	4	4.05	Spring Estate ..	1.95	1.80	9	2	3.21
Unity Valley ..	..	..	..	..	..	Montego Bay ..	1.55	1.22	9	3	2.06
Moneague ..	3.92	2.40	9	6	4.08	Catherine Hall ..	..	..	..	..
Claremont ..	2.16	1.42	9	4	4.58	Friendship ..	2.13	1.80	9	3	..
Albion, St. Ann ..	1.24	0.50	9	6	3.59	Retirement ..	1.97	1.15	9	3	..
Averham Park ..	1.28	0.78	9	2	4.50	King Gate ..	3.50	3.50	9	1	2.94
Mean ..	2.50	..	..	..	..	Blue Hole ..	..	..	..	..
						Haughton Court ..	2.70	1.65	8	3	1.86
						Lucea ..	2.60	1.40	8	2	2.16
						Green Island ..	5.13	2.22	8	4	..
						CENTRAL SUB-DIVISION.					
						Rio Magno ..	1.33	0.50	10	5	..
						Headworks, Rio Cobre ..	0.29	0.11	20	3	1.63
						Linstead ..	0.71	0.21	14	5	1.96
						Berkshire Hall ..	0.57	0.30	10	4	2.09
						Point Hill ..	1.75	0.80	19	3	3.85
						Bellas Gate ..	0.50	0.50	20	1	..
						Croft Hill ..	..	..	..	..
						Chapelton ..	0.77	0.34	22	5	1.80
						Danks Works ..	0.77	0.35	20	4	1.85
						Crooked River ..	1.40	1.20	10	2	..
						Trout Hall ..	..	..	..	..
						Frankfield ..	1.22	1.07	9	2	..
						Mean ..	3.89	..	..	..

WEST-CENTRAL DIVISION.	FEB. 1919.					SOUTHERN DIVISION.	FEB, 1919.				
	Total Fall	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Whitney ..	..	..	..	..	..	Morant Point L.H.	0.54	0.40	20	4	2.74
Mocho, Clarendon ..	0.70	0.50	14	2	1.77	Pleasant Hill ..	1.73	1.23	20	5	..
Spaldings ..	2.90	1.10	8	5	..	East Prospect ..	0.97	0.65	20	3	1.81
Tan-y-bryn ..	..	..	..	..	..	Morant Bay ..	0.76	0.50	13	2	2.03
Brokenhurst ..	1.10	0.80	20	3	2.67	Easington ..	0.48	0.36	13	2	1.52
Christiana ..	2.11	1.27	8	4	2.75	Bull Bay ..	0.56	0.56	14	1	0.53
Chudleigh ..	2.28	0.82	9	5	2.81	Bellevue ..	1.34	0.49	10	5	..
Shooter's Hill ..	1.08	0.54	10	3	1.78	Gordon Town ..	1.41	0.61	9	3	1.76
Kendal, Manchester ..	2.42	1.32	9	2	2.59	Hope Gardens ..	0.74	..	..	..	1.19
Marshall's Pen ..	1.52	0.93	10	5	3.74	King's House Gar.	1.00	..	..	..	1.35
Mandeville ..	2.13	1.26	10	6	2.87	Melrose ..	0.87	0.38	14	3	..
Carlton, Mandeville ..	2.24	1.45	10	5	..	Halfway Tree ..	0.48	0.39	14	2	0.88
The Hill ..	..	..	..	..	..	Lunatic Asylum ..	0.36	0.31	14	2	0.54
Fairfield, Manches-	..	..	..	..	..	S. Camp Road ..	0.29	0.22	14	2	..
ter ..	1.47	0.85	9	6	3.11	Kingston P.W.O.	0.34	0.29	14	3	0.67
Ulster Spring ..	3.75	2.00	4	2	2.76	Plumb Point L.H.	1.05	0.95	14	3	0.72
Freeman's Hall ..	..	..	..	..	..	Clifton Pen ..	0.78	0.78	14	1	..
Albert Town ..	..	..	..	..	..	Quarantine Station	0.62	0.62	14	1	..
Lowe River ..	..	..	..	..	..	Spanish Town ..	0.48	0.24	14	3	1.34
Troy ..	4.45	3.80	8	4	2.82	Hog Hole, St.	..	..	..	..	..
Windsor Pen, Trel.	2.71	1.15	7	5	2.36	Catherine ..	0.85	0.40	13	3	1.82
Medina ..	2.74	1.86	9	4	..	Hartlands ..	0.45	0.35	14	2	1.23
Balaclava Police	..	..	..	..	..	Belmont, Guana-	..	..	..	..	..
Station ..	2.62	1.70	8	5	2.29	boa Vale ..	1.58	0.85	20	3	..
Siloah ..	2.65	1.20	9	4	2.37	Old Harbour ..	0.20	0.20	20	1	1.81
Appleton Estate ..	2.93	1.56	8	4	2.75	May Pen ..	0.45	0.15	1	4	1.76
Magotty ..	1.79	1.06	8	3	2.70	Maysville ..	..	..	..	..	..
Butlers ..	..	..	..	..	..	Dry River, Vere ..	0.22	0.21	20	2	1.02
Dromilly Pen ..	4.51	2.40	7	4	..	Denbigh ..	..	..	..	..	..
Spring Vale ..	2.50	1.30	7	4	2.34	Toll Gate ..	0.65	0.40	20	2	..
Springfield, St. Eli-	..	..	..	..	..	Woodleigh ..	..	..	..	..	..
zabeth ..	2.88	0.93	1	5	..	New Yarmouth ..	0.36	0.36	20	1	1.02
Chesterfield, St.	..	..	..	..	..	Exeter, Vere ..	..	..	..	..	..
James ..	1.61	1.61	8	1	..	Milk River ..	0.10	0.10	20	1	1.64
Kempshot ..	3.03	1.42	9	8	3.00	Clarendon Pk. Ry.	..	..	..	..	..
Cambridge, St.	..	..	..	..	..	St. ..	..	..	..	..	..
James ..	3.39	2.35	8	4	..	Retrieve ..	0.42	0.20	20	3	..
Ducketts ..	3.65	3.00	8	2	..	Hog Hole, S. Man.	..	..	..	..	..
New Market, Police	..	..	..	..	..	Stone's Hope ..	1.19	0.60	14	3	2.22
St. ..	1.90	1.05	8	5	..	Newport, Manches-	..	..	..	..	..
The Bog, New	..	..	..	..	..	ter ..	0.98	0.61	20	6	2.94
Market ..	1.82	0.62	8	8	..	Great Valley, Man.	1.24	0.75	20	5	2.48
Kew Park ..	3.98	2.45	8	4	2.72	Alligator Pond ..	0.60	0.50	20	2	1.20
Montpelier ..	2.20	1.33	9	3	..	Southfield, St. Eli-	..	..	..	..	..
Burnt Ground ..	7.10	3.50	9	5	2.25	zabeth ..	0.75	0.35	20	4	..
Knockalva ..	5.44	3.69	8	9	..	Lititz ..	0.47	0.44	10	2	..
Petersville ..	1.45	0.90	9	3	2.91	Torrington ..	0.33	0.18	10	2	2.52
Darliston ..	1.41	0.63	8	6	3.63	Bethlehem, St. Eliz.	0.27	0.16	15	5	..
Bluefields ..	1.81	0.42	12	6	3.95	Santa Cruz ..	1.48	1.29	9	4	2.48
Whithorn ..	3.65	1.37	9	5	3.40	Pedro Plains Police	..	..	..	..	..
Water Works Pen	4.87	2.15	8	7	..	St. ..	0.13	0.08	15	2	1.43
Great Valley, Han.	..	..	..	..	..	Mountainside ..	0.55	0.24	7	4	..
Fontabelle, Westm.	..	..	..	..	..	Black River ..	0.45	0.42	8	2	1.78
Morgan's Bridge ..	2.30	1.15	15	4	2.43	Font Hill ..	0.10	0.10	8	1	1.38
King's Vale Police	..	..	..	..	..	Mount Edgecombe	0.95	0.36	1	7	2.48
St. ..	4.29	2.70	8	6	2.73	Sweet River ..	4.18	2.10	8	7	2.32
Mean ..	2.59	..	..	..	..	Windsor Sav-la-Mar	3.61	1.64	8	5	2.34
						Orchard ..	3.55	1.65	8	8	..
						Sav.-la-Mar ..	4.25	1.67	8	6	2.00
						Little London ..	2.05	1.00	8	5	..
						Retreat ..	2.83	0.88	26	7	2.36
						Negril Point L.H.	2.31	0.52	1	9	1.54
						Mean ..	1.04	..	..	..	..

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

SHOCKS OF EARTHQUAKE IN FEB, 1919.

DIVISIONAL AND ISLAND RAINFALL.	FEBRUARY.		Date.	Standard Time (Approx.)	Inten- sity.	Notes: where felt, etc.
	1919.	Average.				
	In.	In.				
North-Eastern Division	2.50	5.29	4	hr. min. 10 10 p.m.	III	Mt. Holstein; 9 deg. W .029.
Northern	3.89	2.55			I	Kingston; NNW and SSE .002
West-Central	2.59	2.76				3 secs. Annotto Bay and Bog Walk.
Southern	1.04	1.67	5	5 26 p.m.	I	Kingston; N and S .004; 5 secs.
					III	Claremont, Chapelton, Unity Valley, Porus and Bog Walk.
The Island	2.50	3.07			II	Hartlands, Manningsfield, Vere
					I	Mt. Holstein, Annotto Bay and Montego Bay.
			11	8 30 a.m.	I	Montego Bay
			19	4 35 a.m.	I	Mt. Holstein, E and W: .004; Lawrence Tavern.
			28	8 15 a.m.	I	Mt. Holstein; very slight.

The rains were uniform and light over the whole Island. The heaviest fall was 9.34 inches at Lancaster in the Northern division and the lightest were 0.10 inch at Milk River and Font Hill.

According to the Annual Rainfall Sheets for 1918, received from several of the Public Works Offices, the following corrections must be made in the Weather Reports for last year:—

No. 479, Jan., p. 2	Moore Town	for	3.62	read	8.24
		"	0.55	"	4.12
		"	27	"	31
No. 480, Feb., p. 2,	Fellowship	"	10.36	"	10.86
	Agualta Vale	"	4.60	"	4.66
	Water Valley	"	6.34	"	6.54
No. 481, Mar., p. 2	Greenvale	"	5.24	"	5.84
No. 482, Apr., p. 2	Cedar Valley, St. Thos.	"	5.46	"	2.46
	Brown's Town	"	5.29	"	5.39
p. 4	Easington	"	1.39	"	3.39
		"	0.39	"	2.15
		"	23	"	11
No. 483, May, p. 2	Moore Town	"	65.46	"	64.96
	Alexandria	"	12.13	"	12.03
No. 484, June, p. 2	Moore Town	"	13.75	"	13.15
No. 485, July, p. 2	Fellowship	"	9.22	"	9.12
	Moore Town	"	11.71	"	11.21
No. 486, Aug., p. 4.	Easington	"	2.20	"	5.20
		"	0.60	"	3.60
No. 488, Oct., p. 2.	Moore Town	"	10.90	"	11.70
	Port Maria	"	1.31	"	2.31
No. 489, Nov., p. 2.	Port Maria	"	1.88	"	2.88

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

METEOROLOGICAL RESULTS for the year 1918.

NEGRIL POINT LIGHT HOUSE. Mean Meteorological results for the year 1918. Elevation, 33 feet.

Month.	Barometer.		Temperature.					Extremes for the Month.			Dewpoint and humidity.			Rain-fall.	Wind Miles per diem.	
	7 a.m.	3 p.m.	Mean.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Min.	Range.	7 a.m.	3 p.m.			
January	29.977	29.929	75.6	70.5	81.5	84.4	68.1	16.3	88.9	57.1	31.8	64.5	67.4	63	0.21	250
February	30.017	29.964	75.2	70.3	80.7	84.6	67.3	17.3	88.7	63.2	25.5	64.8	68.6	67	4.35	029
March	29.998	29.946	74.9	69.3	81.6	84.1	66.6	17.5	87.5	62.6	24.9	65.7	69.1	66	4.27	174
April	29.925	29.877	77.4	73.8	82.8	85.2	69.9	15.3	89.3	67.0	22.3	68.3	71.2	68	6.19	209
May	29.940	29.899	77.2	73.8	81.2	85.5	70.3	15.2	87.7	66.7	21.0	68.6	70.9	71	8.07	174
June	29.916	29.896	79.9	79.1	83.8	86.7	72.2	14.5	89.2	68.2	21.0	70.7	72.3	69	3.90	227
July	29.956	29.927	80.2	78.7	83.2	88.1	72.6	15.5	90.5	70.4	20.1	69.9	73.0	72	6.78	181
August	29.951	29.918	80.8	78.9	85.0	88.2	72.9	15.3	91.9	69.9	22.0	71.4	73.9	70	7.51	190
September	29.907	29.868	81.1	79.4	85.4	87.9	73.7	14.2	91.5	70.6	20.9	72.9	74.5	70	10.79	192
October	29.881	29.831	79.5	77.9	82.4	87.8	72.8	15.0	89.7	70.8	18.9	72.2	73.5	74	5.18	159
November	29.915	29.856	77.7	74.1	82.8	85.9	70.1	15.8	89.5	64.7	24.8	68.8	71.0	68	4.55	199
December	29.965	29.905	77.8	73.2	82.9	86.4	70.5	15.9	89.4	66.0	23.4	67.4	70.1	66	1.43	200
Total Means	29.946	29.901	78.1	74.9	82.8	86.2	70.6	15.6	89.5	66.4	23.0	68.8	71.3	69	63.23	197

Month.	Wind from and miles per hour.			Clouds in tenths of the Sky.						Weather Conditions.			
	7 a.m.	3 p.m.	11 p.m.	Lower.		Middle.		Upper.					
				7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.				
January	ENE	mils. 5.9	SSE	mils. 14.2	ENE	mils. 10.5	0.7	0.4	1.3	3.2	2.0	0.6	Fine 13, cloudy 9, overcast 3 and Rain on 6 days. Rainfall below average
February	NE	9.0	Var.	12.0	NE	7.7	1.1	2.1	1.2	4.1	0.8	0.2	Fine 4, cloudy 8, overcast 3. Rain 13 days. Rainfall above average.
March	ENE	7.0	Var.	9.9	ENE	5.7	0.6	1.8	0.1	6.0	1.0	0.0	Fine 4, cloudy 11, overcast 2. Rain 14 days. Rainfall above average. Thunder and lightning on a few days.
April	E	7.1	Var.	11.3	E	7.3	1.5	1.6	0.1	5.6	1.0	0 0	Fine 4, cloudy 6. overcast 4. Rain 16 days. Rainfall twice average. Thunderstorm on 4 days. Thunder and lightning on a few days.
May	NE	8.0	Var.	9.3	ENE	7.0	2.3	3.2	0.4	5.7	2.9	0.1	Fine 2. Overcast 6. Rain 2 days. Rainfall above average. Thunderstorms on 3 days. Thunder and lightning on a few days.
June	E	8.1	NE	11.9	E	9.0	2.6	3.3	0.5	4.4	2.5	0.9	Fine 2, cloudy 5, overcast 9, Rain 14 days. Thunderstorms on 7 days. Rainfall below average. Thunder or lightning on a few days.
July	NE	7.3	Var.	9.3	ENE	6.6	0.3	2.5	0.1	5.4	4.7	0.1	Fine 3, cloudy 7, overcast 6, Rain 15. Thunderstorm on 16th. Lightning or thunder on a few days. Rainfall above the average.
August	ENE	7.2	S	10.3	NE	6.8	0.6	0.9	0.4	6.1	4.3	0.9	Fine 2, cloudy 8, overcast 14, Rain 7. Thunderstorms 6. Thunder or lightning on a few days. Rainfall above average.
Sept.	ENE	7.7	Var.	9.9	NE	7.0	0.7	1.0	0.4	6.2	4.6	1.1	Fine 3, cloudy 4, overcast 8. Rain 15. Thunderstorms on 15th. Thunder or lightning on a few days. Rainfall above average.
October	ENE	6.1	NE	7.3	ENE	6.4	1.0	2.8	0.2	5.0	3.1	0.3	Fine 1, cloudy 6, overcast 5. Rain 19. Thunderstorms on 9th. Thunder or lightning a few days. Rainfall below average.
Nov.	NE	7.0	NNE	11.2	NE	8.1	0.3	2.3	0.6	3.2	2.1	0.8	Fine 5, cloudy 9, overcast 8. Rain 8 days. Rainfall above average. Hail fell on the 21st at 1.26 p.m. = 0.20 in.
December	NE	8.0	Var.	9.7	NE	8.0	2.6	1.6	1.0	4.6	1.6	0.3	Fine 9, fair 1, cloudy 3, overcast 10. Rain 8. Thunderstorms 3. Thunder or lightning on a few days. Rainfall below average
Means	ENE	7.4	Var.	10.5	ENE	7.5	1.2	2.0	0.5	5.0	2.6	0.4	Rainfall for the year above the average with 158 rainy days.

No. 493.



JAMAICA

WEATHER REPORT

FOR THE MONTH OF

MARCH 1919.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part racto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range.
		ft.	in.	in.	°	°	°	°	°		°		°
Morant Pt. Light House	.. 8	30.002	29.970	75.8	81.0	82.5	74.2	8.3	81.5	27	63.0	19*	21.5
Kingston	.. 24	29.935	29.923	70.8	83.4	86.7	69.3	17.4	90.3	1	61.9	21	25.4
Negril Point Light House	.. 33	29.992	29.937	72.3	82.6	85.8	68.2	17.6	89.2	3	63.0	25	26.2
Castleton Gardens	.. 496	..	..	64.8	81.6	85.2	63.9	21.3	90	2*	59	19*	30
Hope Gardens†	.. 668	30.013	29.927	66.5	82.3	87.4	65.8	21.6	92	8	62	19	31
Bavinton, Stony Hill**	.. 1,349	29.992	29.947	66.1	79.7	81.9	63.7	18.2	83.0	1	60.0	19*	26.0
Stony Hill Indus. School	.. 1,400	..	..	63.5	78.9	81.7	63.7	18.0	86	2*	52	19*	24
Kempshot	.. 1,773	29.993	29.937	67.6	75.2	78.6	65.0	12.6	83.3	27	62.9	22	20.4
Hill Gardens	.. 4,900	25.280	25.240	61.6	63.8	66.6	53.8	12.8	69	6*	50	26	19

STATIONS	Eleva- tion.	Dew Point and Hu- midity.			Rainfall.	Wind per diem.	Wind: direction from and miles per hour.			Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.				7 a.m.	3 p.m.		7 a.m.	3 p.m.				
		ft.	°	°	in.	miles.	m.	m.		L.	M.	U.	L.	M.	U.
Morant Pt. Light House	.. 8	67.9	76	69.3	63	2.05	..	NE 15	NE 13	2.5	1.3	0.3	0.8	1.9	0.7
Kingston	.. 24	65.4	83	69.2	63	1.95	196	N 5.0	SE 15.1	1.1	1.4	0.6	2.0	2.6	0.8
Negril Point Light House†	.. 33	65.1	78	68.5	63	0.57	225	ENE 7.4	E 12.4	1.0	0.6	1.4	2.6	3.7	1.0
Castleton Gardens	.. 496	62.6	93	63.2	62	5.53	..	..	..	..	..	..	..	..	..
Hope Gardens	.. 668	62.1	84	63.7	53	1.37	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	.. 1,349	62.5	88	63.9	59	1.78	..	NNE 2.2	ENE 5.5	2.6	1.2	0.5	4.3	2.5	0.4
Stony Hill Indus. School	.. 1,400	62.2	86	61.1	61	1.73	..	..	..	..	..	..	..	..	..
Kempshot	.. 1,773	63.0	85	62.8	65	0.50	177	E 3.7	NE 5.9	2.1	1.3	0.4	1.0	3.6	0.4
Hill Gardens	.. 4,900	56.9	83	59.4	87	2.15	..	..	..	..	..	..	..	..	..

* and on other days.
† Negril Point Light House.
** Bavinton, Stony Hill.

† Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
NE 6.8
Mean Min. temp on grass 59.7
Earth temp 1 ft. below surface 75.3
" " 4 ft. " 75.0

Wind 11 p.m.

WEST-CENTRAL DIVISION.	MARCH, 1919.					SOUTHERN DIVISION.	MARCH, 1919.				
	Total Fall	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Mocho, Clarendon	1.40	1.00	20	3	4.84	Morant Point L.H.	2.05	0.90	17	7	2.11
Spaldings ..	1.20	0.34	17	5	..	Pleasant Hill ..	3.77	1.93	17	6	..
Tan-y-bryn ..	0.70	..	..	..	..	East Prospect ..	3.59	1.12	17	8	2.30
Brokenhurst ..	2.94	0.80	30	12	2.70	Morant Bay ..	1.27	0.58	17	8	1.79
Christiana ..	1.05	0.27	17	8	4.06	Easington ..	1.07	0.50	18	4	2.94
Chudleigh ..	0.77	0.19	17	8	4.22	Bull Bay ..	0.40	0.25	28	2	0.34
Shooter's Hill ..	1.82	1.10	20	6	3.25	Bellevue ..	2.35	1.71	20	8	..
Kendal, Manchester	2.16	1.05	20	6	3.44	Gordon Town ..	1.65	1.25	20	3	1.54
Marshalls Pen ..	1.88	0.67	20	5	3.86	Hope Gardens ..	1.37	..	..	..	1.90
Mandeville ..	2.28	0.67	20	9	4.28	King's House Gar.	1.98	..	..	..	1.26
Carlton, Mandeville	1.90	0.50	20	8	4.28	Melrose ..	2.48	1.38	20	4	..
Retford ..	2.23	0.95	20	9	..	Halfway Tree ..	3.39	0.92	20	5	1.06
Fairfield, Manches-						Lunatic Asylum	2.67	2.15	20	3	0.97
ter ..	2.74	0.96	30	7	3.84	Glenmore Road ..	1.63	1.24	20	3	..
Ulster Spring ..	0.15	0.09	30	2	3.40	Kingston P.W.O.	1.95	1.12	20	3	1.05
Freeman's Hall ..	..	..	..	..	..	Plumb Point L.H.	3.22	3.02	20	5	0.91
Albert Town ..	..	..	..	..	..	Clifton Pen ..	1.50	0.80	28	3	..
Lowe River ..	..	..	..	..	..	Quarantine Station	3.34	1.40	28	5	..
Troy ..	1.85	1.15	1	3	6.17	Spanish Town ..	..	..	..	..	..
Windsor Pen, Trel.	0.69	0.23	12	4	3.07	Leigh Farm ..	1.84	1.34	29	4	..
Medina ..	..	..	..	..	..	Hog Hole, St.					
Balaclava Police						Catherine ..	2.17	0.90	26	6	2.12
Station ..	2.22	1.16	15	6	4.74	Hartlands ..	3.86	1.50	20	4	1.74
Siloah ..	1.70	1.10	20	3	5.68	Belmont, Guana-					
Appleton Estate ..	2.15	0.83	20	7	5.47	boa Vale ..	4.03	1.75	31	7	..
Magotty ..	2.76	1.06	30	4	5.80	Old Harbour ..	..	..	..	..	..
Dromilly Pen ..	0.49	0.49	28	1	..	May Pen ..	3.68	1.45	20	7	2.01
Spring Vale ..	0.25	0.15	20	2	2.92	Maysville ..	..	..	..	..	..
Springfield, St. Eli-						Dry River, Vere ..	1.20	0.52	28	4	1.83
zabeth ..	1.69	0.73	31	6	..	Toll Gate ..	2.55	0.70	20	8	..
Chesterfield, St.						Woodleigh ..	..	..	..	..	..
James ..	0.90	0.70	15	2	..	New Yarmouth ..	0.93	0.42	17	3	1.26
Kempshot ..	0.50	0.24	13	5	3.00	Exeter, Vere ..	..	..	..	..	..
Cambridge, St.						Milk River ..	0.45	0.15	30	3	1.66
James ..	0.35	0.20	14	3	..	Clarendon Pk. Ry.					
Ducketts ..	0.50	0.25	15	3	..	St. ..	..	..	..	..	..
New Market, Police						Retrieve ..	1.83	0.70	30	5	..
St. ..	1.87	0.84	20	7	..	Hog Hole, S. Man.	2.65	0.72	30	6	..
The Bog, New						Stone's Hope ..	3.14	0.66	16	7	2.64
Market ..	0.86	0.32	15	7	..	Newport, Manches-					
Kew Park ..	0.65	0.30	15	3	..	ter ..	4.15	1.05	27	10	3.03
Montpelier ..	0.20	0.20	31	1	..	Great Valley, Man.	2.78	0.81	30	8	2.23
Burnt Ground ..	0.50	0.20	13	5	4.19	Alligator Pond ..	1.33	0.37	17	7	1.73
Knockalva ..	0.47	0.17	13	5	..	Southfield, St. Eli-					
Petersville ..	0.93	0.50	15	5	5.18	zabeth ..	1.76	0.86	28	8	..
Darliston ..	1.26	0.65	15	5	6.54	Lititz ..	1.83	1.00	30	7	..
Bluefields ..	2.70	0.67	14	6	8.24	Torrington ..	2.24	0.94	28	5	3.47
Whithorn ..	0.53	0.28	1	2	5.87	Bethlehem, St. Eliz.	1.69	0.54	30	9	4.25
Water Works Pen	1.36	0.93	29	4	..	Santa Cruz ..	2.95	0.95	14	8	4.26
Great Valley, Han.	..	..	..	..	..	Pedro Plains Police					
Fontabelle, Westm.	..	..	..	..	..	St. ..	1.00	0.70	25	2	2.34
Morgan's Bridge ..	0.15	0.15	31	1	4.75	Mountainside ..	1.12	0.48	28	3	..
King's Vale Police						Black River ..	0.96	0.40	14	4	2.59
St. ..	0.74	0.42	14	2	4.91	Font Hill ..	1.45	1.00	15	3	4.09
						Mount Edgecombe	1.58	0.57	15	6	4.10
						Sweet River ..	1.35	0.60	15	5	3.54
						Windsor Sav-la-Mar	0.90	..	28	4	2.90
						Orchard ..	0.76	0.52	28	3	..
						Sav-la-Mar ..	1.06	0.32	28	6	2.63
						Little London ..	0.45	0.15	28	2	..
						Retreat ..	0.12	0.12	15	1	3.28
						Negril Point L.H.	0.57	0.42	15	4	2.34
Mean ..	1.46	..	..	..	..	Mean ..	1.91	..	..	..	..

NOTES.

COMPARATIVE TABLE OF RAINFALL.
Based upon the "Average" Stations only.)

SHOCKS OF EARTHQUAKE IN MARCH, 1919.

DIVISIONAL AND ISLAND RAINFALL.	MARCH,		Date.	Standard Time (Approx.) hr. min.	Inten- sity.	Notes: where felt, etc.
	1919.	Average.				
	In.	In.				
North-Eastern Division ...	3.05	4.61				No earthquakes this month.
Northern " ...	1.28	2.36				
West-Central " ...	1.46	4.18				
Southern " ...	1.91	2.22				
The Island ...	1.92	3.34				

The rains were very light over the whole Island. In each Division the West end had less rain than the Eastern part. No rain fell at Glasgow, King Gate and Haughton Court. The heaviest falls were 9.85 inches and 8.87 inches at Moore Town and Mount Holstein respectively.

MAXWELL HALL,
Government Meteorologist.

Montego Bay P.O.

MORANT POINT LIGHT HOUSE. Mean Meteorological results for the year 1918. Elevation, 8 feet.

Month.	Barometer Pressure.		Temperatures.						Extremes for the Month.			Dewpoint and humidity.			Rain-fall.	Miles of Wind per diem.
	7 a.m.	3 p.m.	Mean.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Min.	Range.	7 a.m.	3 p.m.			
January	29.998	29.954	76.5	76.0	79.4	80.8	72.0	8.8	82.5	57.0	25.5	66.8	68.3	69	ins.	—
February	30.027	29.994	76.9	77.0	79.0	80.8	73.0	7.8	82.0	70.0	12.0	68.5	68.7	70	3.25	—
March	30.074	29.972	76.9	76.1	80.3	82.1	71.1	11.0	84.0	64.0	20.0	68.2	68.4	67	2.52	—
April	29.944	29.898	78.6	77.8	81.5	83.6	73.5	10.1	86.0	63.0	23.0	70.4	69.1	66	6.63	*280
May	29.954	29.921	78.8	79.2	80.7	83.3	74.1	9.2	85.5	71.5	14.0	71.6	71.5	74	10.74	300
June	29.943	29.917	80.2	80.6	82.9	84.6	74.7	9.9	86.5	68.0	18.5	73.0	73.4	73	6.73	298
July	29.977	29.952	82.2	81.5	84.4	86.0	79.0	7.0	87.0	73.0	14.0	74.0	73.8	71	2.02	363
August	29.971	29.945	83.0	81.9	85.2	86.8	80.3	6.5	88.5	73.5	15.0	74.5	74.7	71	4.36	289
September	29.922	29.892	82.8	81.5	85.6	87.6	78.5	9.1	88.5	72.0	16.5	74.1	74.4	70	3.98	222
October	29.900	29.856	81.5	80.6	83.6	85.8	78.0	7.8	87.5	73.0	14.5	73.9	74.3	74	8.14	208
November	29.923	29.884	80.3	79.0	82.8	84.5	76.9	7.6	86.0	67.0	19.0	70.6	71.1	68	3.46	266
December	29.977	29.938	79.3	78.5	81.3	82.7	76.9	5.8	84.5	65.0	19.5	71.2	72.4	75	4.15	336
Total Means	29.967	29.927	79.8	79.1	82.2	84.1	75.7	8.4	85.7	68.1	17.6	71.4	71.7	71	56.62	†380

* For 15 days.
† For 6 months.

Month.	Wind from and miles per hour.				Clouds in tenths.						Weather Conditions.		
	7 a.m.		3 p.m.		11 p.m.		Lower.		Middle.			Upper.	
	Direction	mils.	Direction	mils.	Direction	mils.	7 a.m.	3 p.m.	7 a.m.	3 p.m.		7 a.m. 3 p.m.	
January	ENE	17	NE by E	16	..	..	3 3	3 0	0 6	0 6	0 5	0 1	Fine and dry. Strong E. wind and heavy sea on 28th and 29th. Clear blue sky on 2 days.
February	NE by N	17	NE	15	..	..	4 1	2 4	0 6	1 9	0 4	0 5	Norther on 22nd. Rainfall well distributed but small. 1 day clear blue sky.
March	NE	10 5	ENE	10 5	..	..	2 0	1 4	1 6	2 5	0 2	0 4	Clear blue sky 6 days. Frequent showers but scanty fall.
April	NE by E	10 6	ENE	10 2	..	..	3 0	2 5	1 3	1 3	0 4	0 6	Clear blue sky 2 days. Thunderstorm with continuous rain on 11th. Overcast 3 days. Distant lightning 4 days.
May	NE by N	13 5	NE $\frac{1}{2}$ E	14	..	..	3 3	3 8	2 1	1 7	1 1	1 0	Cloudy 8 days. Overcast 7 days. Thunderstorms 21st and 22nd. Distant lightning 6 days NE
June	NE by E	16 5	ENE	13 8	..	..	3 0	1 5	1 8	2 2	1 4	2 1	Overcast 5 days. Thunderstorms 6 days. Distant lightning 5 days. Depression on 18th, line squall on 12th at 5.50 p.m.
July	ENE	19	ENE	18	..	..	1 3	0 8	2 5	1 9	0 8	1 3	ENE gale 7th and 8th. Thunderstorm on 30th. Distant lightning 5 days, clear blue sky 2 days. 2 days overcast.
August	NE $\frac{1}{2}$ E	13 4	NE $\frac{1}{2}$ E	13 6	..	..	1 3	1 3	1 3	.8	1 6	1 8	E gale 3rd, clear blue sky 5 days. Overcast 1 day. Distant lightning 10 days.
Sept.	ENE	9	NE by E	10 3	..	..	0 9	0 7	1 7	2 3	0 7	2 0	Clear blue sky 2 days. Distant lightning 15 days N & N W. Thunderstorm 31st.
October	E	8 8	NE	9 3	..	..	3 0	2 5	2 0	2 1	1 1	1 9	Thunderstorm on 3rd. Distant lightning 16 days. Overcast 3 days.
Nov.	NE	15	NE	14	..	..	2 5	1 7	2 0	1 9	0 2	0 3	Norther on 6th and 7th. Clear blue sky 2 days. Distant Lightning 5 days.
December	NE	15	NE	16	..	..	3 6	3 0	1 3	1 9	0 6	0 5	Norther 30th & 31st. Thunderstorms 14th & 15th. Frequent showers but scanty.
Means	NE by E	13 8	NE by E	13 4	..	..	2 6	2 1	1 5	1 8	.8	1 0	



JAMAICA

WEATHER REPORT

FOR THE MONTH OF

APRIL 1919.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part racto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range.
		ft.	in.	in.	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.952	29.925	78.1	80.5	82.3	75.4	6.9	86.0	18	67.0	1	19.0
Kingston ..	24	29.934	29.887	75.5	84.4	87.8	72.3	15.5	91.7	13	68.1	26	23.6
Negril Point Light House ..	33	29.939	29.839	76.2	84.2	86.6	71.8	14.8	90.5	3*	68.1	3	22.4
Castleton Gardens ..	496	..	..	68.1	80.7	83.8	67.4	16.4	90	17	61	29	29
Hope Gardens† ..	668	29.947	29.875	70.4	82.4	87.7	68.0	19.7	92	10*	64	9	28
Bavinton, Stony Hill** ..	1,349	29.935	29.879	68.7	77.8	81.7	66.0	15.7	86.5	16*	63.5	16*	23.0
Stony Hill Indus. School ..	1,400	..	..	67.7	77.3	80.8	65.5	15.3	89	17	64	1*	25
Kempshot ..	1,773	29.949	29.901	69.1	72.3	78.2	67.2	11.0	81.6	28	65.2	25	16.4
Hill Gardens ..	4,900	25.257	25.238	63.3	64.6	67.4	55.7	11.7	70	8	54	2*	16

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		ft.	°	°				in	miles.		m.		m.	L.	M.	U.	L.
Morant Pt. Light House ..	8	70.5	78	69.9	70	7.84	..	NE	16	NE	17	1.4	2.9	1.3	2.5	1.8	0.8
Kingston ..	24	68.8	80	71.1	65	2.40	172	N	5.1	SE	11.2	1.8	1.3	1.2	2.9	2.1	1.9
Negril Point Light House† ..	33	67.8	75	71.1	65	0.97	220	NE	8.3	N	11.9	2.0	1.7	1.4	1.7	5.1	0.0
Castleton Gardens ..	496	65.9	93	71.8	74	7.60	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	64.0	81	66.8	60	4.48	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill ..	1,349	66.0	90	67.5	71	5.04	..	N	2.1	N	4.3	3.0	1.9	1.4	5.1	2.1	0.5
Stony Hill Indus. School ..	1,400	65.2	92	67.1	71	5.13	..	..	..	..	..	..	..	..	..	..	..
Kempshot ..	1,773	65.0	87	67.2	82	2.47	108	E	7.0	E	6.0	3.6	1.1	1.5	3.5	3.5	0.7
Hill Gardens ..	4,900	58.4	83	60.2	83	10.49	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
† Negril Point Light House. Wind 11 p.m. NE 7.4
** Bavinton, Stony Hill. Mean Min. temp. on grass 63.1
Earth temp. 1 ft. below surface 76.8
" " 4 ft. " 75.7

THE RAINFALL.

The first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central Sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; the North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

APRIL, 1919.

NORTHERN
DIVISION.

Total fall.

Greatest
fall in
24 hours.

Amount.

Date.

Days on which
0.01 or more fell.

Average.

NORTH-EASTERN DIVISION.	APRIL, 1919.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	in.	In.			In.
Manchioneal ..	15.76	5.53	19	13	6.32
Spring Valley ..	16.14	5.00	14	13	10.70
Bath ..	8.44	1.60	24	16	5.65
Priestman's River ..	11.84	5.40	19	7	..
Moore Town ..	32.38	6.00	24	18	9.77
Port Antonio ..	12.85	7.47	16	14	6.27
Fellowship ..	23.47	7.47	16	22	9.24
Johnson River ..	..	..	..	..	..
Bridge ..	2.95	0.80	19	11	4.38
Shrewsbury ..	25.80	3.20	16	14	5.33
Cedar Valley, St. Thos. ..	7.11	2.00	14	7	3.94
Farm Hill ..	..	..	..	..	..
Hill Gardens ..	10.49	4.40	20	11	6.09
Chepstowe ..	..	..	..	..	..
Spring Garden ..	7.58	1.60	24	15	..
Buff Bay ..	7.03	2.55	23	15	5.73
Greenvale ..	18.61	4.40	20	13	8.68
Belvedere, Portland ..	13.31	2.47	23	19	..
Mt. Holstein ..	11.84	3.88	24	19	6.00
Irish Town ..	2.93	1.35	25	3	5.11
Rose Hill ..	..	..	..	..	..
Hardware Gap ..	11.50	..	..	..	5.86
Stony Hill Ind. ..	..	..	..	..	..
School ..	5.13	1.13	25	11	5.24
Castleton Gardens ..	7.60	2.20	30	9	6.80
Lawrence Tavern ..	12.37	3.25	15	9	4.24
Cedar Valley, Red Hill ..	3.64	2.00	25	8	..
Zion Hill ..	7.03	2.11	19	6	..
Agualta Vale ..	3.66	1.20	23	18	4.95
Water Valley ..	9.39	1.65	23	17	4.44
Platfield ..	3.84	1.37	15	7	..
Richmond, St. Mary ..	2.28	0.50	20	13	4.54
Highgate ..	..	..	..	..	..
Hampstead, St. Mary ..	9.38	1.56	15	14	6.18
Guy's Hill ..	6.05	1.20	15	4	..
Lucky Hill ..	7.70	1.24	24	13	..
Rio Hoe ..	7.13	2.27	15	10	4.38
Unity Valley ..	10.21	2.57	15	15	4.61
Moncague ..	11.36	3.35	15	14	4.04
Claremont ..	5.61	1.86	15	8	3.80
Albion, St. Ann ..	8.76	2.48	15	14	4.38
Averham Park ..	6.47	1.75	24	11	4.73
Mean ..	10.95	..	..	..	..

Port Maria ..	3.68	1.15	15	12	3.88
Ocho Rios ..	6.30	2.20	24	7	2.83
Bogue, Ocho Rios ..	6.24	1.46	25	9	6.60
Rockfield ..	5.46	1.65	24	12	..
Drax Hall ..	2.64	0.65	24	10	3.21
Liberty Hill ..	3.05	1.10	24	9	4.02
St. Ann's Bay ..	2.65	0.49	24	14	3.06
Seville ..	3.17	1.00	24	9	..
Richmond Estate ..	..	..	..	..	..
Llandovery ..	3.64	1.46	18	11	3.39
Runaway Bay ..	2.42	1.10	28	6	..
Brown's Town ..	3.06	1.76	24	4	3.28
Alexandria ..	3.98	1.11	4	8	..
Watt Town, St. Ann ..	4.32	1.97	4	5	..
Home Castle ..	2.15	0.50	15	11	3.23
Richmond Pen ..	5.79	2.07	15	7	3.47
Bryan Castle ..	..	..	..	..	..
Braco ..	..	..	..	..	..
Arcadia ..	2.30	0.80	15	6	2.28
Lancaster ..	1.99	0.80	15	5	2.26
Harmony Hall ..	1.44	0.48	15	6	2.07
Vale Royal ..	..	..	..	..	..
Colchis Pen ..	2.90	1.50	..	5	3.08
Georgia ..	..	..	..	..	..
Long Pond ..	1.92	0.58	24	9	..
Hyde Hall ..	1.20	0.50	20	4	..
Steelfield ..	1.90	0.75	24	4	..
Etingdon ..	1.05	0.60	25	4	..
Springfield ..	..	..	..	..	..
Falmouth ..	0.66	0.46	24	2	2.20
Florence Hall ..	1.94	1.94	24	1	..
Good Hope ..	2.32	0.77	24	7	..
Canaan ..	4.15	1.00	15	8	3.62
Content ..	..	..	..	..	..
Guildsbro ..	..	..	..	..	..
Glasgow ..	3.05	1.10	19	4	..
Spring Estate ..	2.80	2.06	19	4	2.08
Montego Bay ..	1.93	1.11	16	7	3.71
Catherine Hall ..	..	..	..	..	..
Friendship ..	2.40	0.60	16	8	..
Retirement ..	1.93	0.58	19	..	..
King Gate ..	7.70	2.00	2	6	3.70
Blue Hole ..	5.08	1.75	18	9	..
Haughton Court ..	6.05	1.75	19	8	3.67
Lucea ..	5.90	2.04	19	8	4.07
Green Island ..	6.12	1.85	4	7	..
CENTRAL SUB-DIVISION.	..	..	..	..	..
Rio Magno ..	9.82	1.90	15	14	..
Headworks, Rio Cobre ..	2.50	0.96	26	8	3.62
Linstead ..	6.09	2.06	15	9	..
Berkshire Hall ..	6.16	1.58	4	13	2.40
Point Hill ..	7.39	2.20	15	10	..
Bellas Gate ..	5.48	1.06	4	9	..
Croft Hill ..	5.67	1.80	25	8	4.70
Chapelton ..	10.61	2.54	19	12	3.57
Danks Works ..	6.84	1.85	19	12	4.69
Crooked River ..	..	..	..	..	..
Trout Hall ..	4.24	2.25	15	7	..
Frankfield ..	5.39	1.65	16	8	..
Mean ..	4.18	..	..	..	..

WEST-CENTRAL DIVISION.	APRIL, 1919.					SOUTHERN DIVISION.	APRIL, 1919.				
	Total Fall	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Mocho, Clarendon	9.90	1.90	27	10	5.12	Morant Point L.H.	7.84	5.82	19	16	2.99
Spaldings ..	7.08	1.35	25	17	..	Pleasant Hill ..	7.18	3.69	19	11	..
Tan-y-bryn ..	..	..	..	..	..	East Prospect ..	4.33	2.09	19	11	5.71
Brokenhurst ..	8.00	1.95	19	13	5.25	Morant Bay ..	2.05	0.80	19	9	2.55
Christiana ..	10.36	2.04	14	16	8.10	Easington ..	1.66	0.60	24	7	1.73
Chudleigh ..	11.30	2.95	25	13	5.91	Bull Bay ..	0.88	0.50	25	3	0.85
Shooter's Hill ..	7.32	2.36	19	13	5.14	Bellevue ..	5.90	2.57	25	17	..
Kendal, Manchester	10.27	3.95	19	9	7.44	Gordon Town ..	..	..	..	..	..
Marshalls Pen ..	14.99	2.46	14	12	5.90	Hope Gardens ..	4.48	..	..	..	2.84
Mandeville ..	11.09	2.50	19	19	5.96	King's House Gar.	2.35	1.10	25	3	2.48
Carlton, Mandeville	8.50	2.35	19	16	5.96	Melrose ..	2.71	1.06	25	3	..
Retford ..	15.09	2.31	3	20	..	Halfway Tree ..	2.68	1.40	25	5	1.63
Fairfield, Manches-	..	..	..	..	..	Lunatic Asylum	1.50	1.79	25	5	1.07
ter ..	11.12	2.10	19	24	6.46	Glenmore Road ..	1.98	1.36	25	5	..
Ulster Spring ..	8.05	2.76	19	11	6.20	Kingston P.W.O.	2.40	1.78	25	5	1.01
Freeman's Hall ..	10.20	1.92	4	12	..	Plumb Point L.H.	1.93	0.70	25	9	0.99
Albert Town ..	9.76	2.40	19	12	6.48	Clifton Pen ..	2.65	1.80	25	3	..
Lowe River ..	13.52	2.05	10	10	5.78	Quarantine Station	3.01	2.85	25	2	..
Troy ..	16.12	5.00	12	13	9.62	Spanish Town ..	8.05	3.83	25	11	..
Windsor Pen, Trel.	3.56	1.10	5	7	6.10	Leigh Farm ..	..	..	..	..	..
Medina ..	..	..	..	..	..	Hog Hole, St.	..	..	..	..	..
Balaclava Police	..	..	..	..	..	Catherine ..	4.06	1.57	24	8	2.96
Station ..	16.51	3.97	5	18	9.66	Hartlands ..	6.63	2.60	25	9	2.25
Siloah ..	18.22	5.45	4	14	9.16	Belmont, Guana-	..	..	..	..	..
Appleton Estate ..	21.22	5.67	4	19	9.67	boa Vale ..	4.08	1.05	25	9	..
Magotty ..	13.03	2.60	4	12	9.39	Old Harbour ..	6.66	4.34	25	5	..
Dromilly Pen ..	6.25	1.50	4	8	..	May Pen ..	3.80	1.50	25	4	2.92
Spring Vale ..	4.27	1.70	5	8	5.44	Maysville ..	4.08	1.50	19	3	..
Springfield, St. Eli-	..	..	..	..	..	Dry River, Vere ..	2.04	0.75	26	7	3.25
zabeth ..	15.98	3.70	4	17	..	Toll Gate ..	5.82	1.45	27	11	..
Chesterfield, St.	..	..	..	..	..	Woodleigh ..	..	..	..	..	..
James ..	11.86	1.63	19	15	..	New Yarmouth ..	2.39	0.98	26	5	2.31
Kempshot ..	2.47	0.62	19	10	5.54	Exeter, Vere ..	..	..	..	..	..
Cambridge, St.	..	..	..	..	..	Milk River ..	3.22	0.90	25	6	2.25
James ..	4.21	1.68	4	10	..	Clarendon Pk. Ry.	..	..	..	..	..
Ducketts ..	6.40	2.30	4	8	..	St. ..	..	..	..	..	..
New Market, Police	..	..	..	..	..	Retrieve ..	5.90	1.21	19	9	..
St. ..	13.88	6.18	4	11	..	Hog Hole, S. Man.	11.38	3.07	4	10	..
The Bog, New	..	..	..	..	..	Stone's Hope ..	10.16	3.75	19	12	4.13
Market ..	12.92	2.07	5	16	..	Newport, Manches-	..	..	..	..	..
Kew Park ..	6.64	2.02	15	10	8.27	ter ..	11.11	3.60	19	20	4.96
Montpelier ..	2.64	0.81	29	9	..	Great Valley, Man.	7.27	1.87	24	15	4.05
Burnt Ground ..	8.13	1.40	5	8	..	Alligator Pond ..	7.41	1.57	25	12	3.20
Knockalva ..	..	..	..	..	..	Southfield, St. Eli-	..	..	..	..	..
Petersville ..	6.39	1.50	14	11	7.35	zabeth ..	5.42	1.27	21	13	..
Darliston ..	10.93	2.72	19	13	11.40	Lititz ..	12.32	2.08	19	14	..
Bluefields ..	5.02	1.78	22	12	8.00	Torrington ..	8.89	2.30	21	14	4.53
Whithorn ..	4.02	1.00	25	6	7.98	Bethlehem, St. Eliz.	10.29	2.03	22	17	6.30
Water Works Pen	7.91	2.85	19	14	..	Santa Cruz ..	9.92	1.55	29	16	9.34
Great Valley, Han.	..	..	..	..	..	Pedro Plains Police	..	..	..	..	..
Fontabelle, Westm.	..	..	..	..	..	St. ..	3.56	1.30	4	8	2.22
Morgan's Bridge ..	4.15	1.70	15	5	6.14	Mountainside ..	5.31	1.00	19	8	..
King's Vale Police	..	..	..	..	..	Black River ..	5.63	1.51	21	11	4.18
St. ..	5.20	1.96	15	8	5.90	Font Hill ..	3.75	2.25	5	8	4.40
						Mount Edgecombe	4.64	0.95	15	15	5.40
						Sweet River ..	6.83	1.86	19	10	5.70
Mean ..	9.71	..	..	..	..	Windsor Sav-la-Mar	8.39	2.39	25	12	4.99
						Orchard ..	8.80	2.31	25	13	..
						Sav.-la-Mar ..	5.11	1.87	19	9	5.29
						Little London ..	9.12	5.12	19	11	..
						Retreat ..	3.71	1.35	5	8	5.07
						Negril Point L.H.	0.97	0.36	19	7	3.03
						Mean ..	4.90	..	..	..	..

NOTES.

COMPARATIVE TABLE OF RAINFALL.
Based upon the "Average" Stations only.

SHOCKS OF EARTHQUAKE IN APRIL, 1919.

DIVISIONAL AND ISLAND RAINFALL.	APRIL,		Date.	Standard Time (Approx.)	Inten- sity.	Notes: where felt, etc.
	1919.	Average.				
	In.	In.				
North-Eastern Division	10.95	5.31	10	hr. min. 4 45 p.m.	I	Kingston: SSE & NNW .010 Mt. Holstein—Very slight.
Northern "	4.18	3.05	15	11 20 p.m.	I	Kingston: N & S .005. Du- ration 3 seconds. Mount Holstein: double but slight.
West-Central "	9.71	7.13	25	7 20 p.m.	II	Mt. Holstein: Short and sharp Lawrence Tavern and Buff Bay, Albion, St. Ann: double.
Southern	4.90	3.24				
The Island	7.44	4.68				

The rains very exceedingly heavy over the north-eastern and central parts of the island; over 20 inches falling at some places. The southern coast had average rains but all along the northern shore from St. Ann's Bay to Negril Point Light-house only light showers fell. The heaviest fall 32.38 inches was recorded at Moore Town and the smallest 0.66 at Falmouth.

MAXWELL HALL,
Government Meteorologist

Montego Bay P.O.



JAMAICA

WEATHER REPORT

FOR THE MONTH OF

MAY, 1919.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part racto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range.
		ft.	in.	in.	°	°	°	°	°		°		°
Morant Pt. Light House	.. 8	29.936	29.903	80.	82.2	84.3	77.8	6.5	86.5	29	73.0	17	13.0
Kingston	.. 24	29.919	29.867	77.9	84.0	87.0	73.8	13.2	91.5	6	71.1	1	20.4
Negril Point Light House	.. 33	29.916	29.875	79.1	83.0	86.2	73.4	12.5	90.5	3	70.0	6	20.5
Castleton Gardens	.. 496	..	..	70.3	82.9	85.5	69.3	16.2	90	5*	67	1*	23
Hope Gardens†	.. 668	29.936	29.864	74.1	84.8	88.3	69.7	18.6	92	14*	67	1*	25
Bavinton, Stony Hill**	.. 1,349	29.917	29.860	70.8	79.2	82.2	67.9	14.3	88.0	24	65.5	8	22.5
Stony Hill Indus. School	.. 1,400	..	..	71.0	73.5	83.1	67.6	15.5	89.0	24	64.0	1	25.0
Kempshot	.. 1,773	29.923	29.878	71.4	74.2	80.5	68.9	11.6	84.4	22	67.3	5	17.1
Hill Gardens	.. 4,900	25.247	25.211	64.3	65.9	69.2	61.9	7.3	72	28	56	3	16

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.			Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.				7 a.m.	3 p.m.			7 a.m.	3 p.m.				
		ft.	°	°	in.	miles.		m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House	.. 8	73.5	81	73.7	76	17.45	..	E b N 13	E b N 12.5	3.4	1.8	1.3	2.7	1.7	1.3	
Kingston	.. 24	72.0	82	73.0	70	7.04	251	E 5.9	SE 18.5	2.3	1.2	2.5	2.6	1.4	2.7	
Negril Point Light House†	.. 33	71.6	78	74.0	75	12.16	252	ENE 8.3	SE 10.6	2.3	1.5	2.0	2.2	5.4	1.4	
Castleton Gardens	.. 496	68.0	93	73.8	74	11.92	..	..	..	..	..	..	..	..	..
Hope Gardens	.. 668	69.0	81	69.4	67	7.41	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	.. 1,349	68.0	91	70.5	75	10.98	..	NE 1.7	NNW 4.6	2.9	1.3	2.1	5.0	2.4	0.9	
Stony Hill Indus. School	.. 1,400	68.1	90	70.9	78	11.33	..	..	..	..	..	..	..	..	..
Kempshot	.. 1,773	67.9	89	70.9	90	10.53	162	E 6.4	E 3.8	2.0	1.6	1.8	4.1	3.4	1.8	
Hill Gardens	.. 4,900	62.0	95	63.0	90	17.57	..	..	..	..	..	..	..	..	..

* and on other days.
† Negril Point Light House. Wind 11 p.m. E by S 20.0
** Bavinton, Stony Hill. Mean Min. temp. on grass 64.9
Earth temp. 1 ft. below surface 78.3
" " 4 ft. " 76.9

THE RAINFALL.

The first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; the North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

						MAY, 1919.										
NORTH-EASTERN DIVISION.						Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.						
							Amount.	Date.								
						in.	In.			In.						
Manchioneal ..						29.09	5.45	15	22	14.77	Liberty Hill* .. 10.40 2.16 9 12 3.21					
Spring Valley ..						29.29	8.21	15	20	10.67	St. Ann's Bay .. 12.88 3.26 18 18 5.64					
Bath ..						36.44	7.35	31	19	12.75	Seville .. 12.00 2.58 17 16 ..					
Priestman's River ..						27.28	5.60	15	13	..	Richmond Estate .. 70.40 2.90 18 14 7.42					
Moore Town ..						25.18	6.00	18	17	16.96	Llandovery .. 11.51 2.92 18 13 7.11					
Port Antonio ..						17.23	6.73	18	17	16.66	Runaway Bay .. 4.86 1.15 18 11 ..					
Fellowship ..						21.02	7.22	18	23	20.85	Brown's Town .. 8.77 2.25 18 8 7.23					
Johnson River											Alexandria .. 6.38 1.84 17 11 ..					
Bridge ..						31.00	8.97	15	25	9.52	Watt Town, St. Ann .. 10.49 2.73 18 9 ..					
Shrewsbury ..						18.13	6.21	18	14	11.94	Home Castle .. 8.95 2.30 .. 12 6.13					
Cedar Valley, St. Thos. ..						26.39	6.30	15	11	9.33	Richmond Pen .. 9.45 2.50 18 10 7.76					
Farm Hill ..						22.60	5.80	19	9	6.57	Bryan Castle .. 6.20 1.50 16 14 5.49					
Hill Gardens ..						17.57	3.00	18	12	10.71	Braco .. 5.95 1.70 18 10 4.90					
Chepstowe ..											Arcadia .. 8.62 2.20 18 15 4.98					
Spring Garden ..						11.48	2.80	19	18	..	Lancaster .. 6.92 1.55 18 11 5.40					
Buff Bay ..						12.84	2.95	18	18	8.15	Harmony Hall .. 6.77 1.40 18 12 4.88					
Greenvale ..						6.35	2.50	18	8	8.01	Vale Royal .. 7.88 2.26 18 12 6.34					
Belvedere, Portland ..						16.19	4.33	18	16	..	Colchis Pen .. 4.25 1.15 .. 8 7.15					
Mt. Holstein ..						9.17	2.28	18	15	8.14	Georgia .. 6.13 1.50 18 14 ..					
Irish Town ..						9.73	2.15	19	6	5.27	Long Pond					
Rose Hill ..						11.68	2.80	17	8	..	Hyde Hall					
Hardware Gap ..						14.38				12.57	Steelfield					
Stony Hill Ind. School ..						11.38	2.52	19	12	9.73	Etingdon					
Castleton Gardens ..						11.92	3.62	31	16	12.04	Springfield .. 4.50 1.85 18 11 ..					
Lawrence Tavern ..						13.33	2.90	17	11	..	Falmouth .. 6.80 1.12 8 10 5.19					
Cedar Valley, Red Hill ..						12.02	2.88	19		..	Florence Hall .. 7.31 1.50 19 11 ..					
Zion Hill ..						13.62	4.73	18	6	..	Good Hope .. 10.73 2.20 18 12 ..					
Agualta Vale ..						11.19	3.18	18	21	4.55	Canaan .. 15.42 3.5 15 18 7.55					
Water Valley ..						18.52	4.20	17	19	7.86	Content					
Platfield ..						14.88	6.80	17	9	..	Gailsbro .. 9.26 1.60 18 18 8.61					
Richmond, St. Mary ..						15.75	3.67	18	18	7.54	Glasgow .. 8.47 1.90 18 9 ..					
Highgate ..											Spring Estate .. 5.87 1.95 19 8 5.03					
Hampstead, St. Mary ..						19.31	3.03	17	16	7.31	Montego Bay .. 7.82 1.37 28 17 7.60					
Guy's Hill ..						10.08	1.60	17	18	..	Catherine Hall					
Lucky Hill ..						19.82	5.20	18	21	..	Friendship .. 8.83 2.40 15 16 ..					
Rio Hoe ..						17.93	4.87	18	14	8.48	Retirement .. 9.53 2.59 15 16 ..					
Unity Valley ..						20.59	4.80	17	16	9.99	King Gate .. 7.71 0.97 23 9 9.18					
Moneague ..						22.82	5.75	18	12	8.26	Blue Hole .. 14.80 2.00 11 17 ..					
Claremont ..						14.71	4.40	19	13	7.34	Haughton Court .. 8.20 2.05 11 11 8.03					
Albion, St. Ann ..						15.93	4.47	17	18	8.46	Lucea .. 8.79 2.15 28 14 8.09					
Averham Park ..						8.11	2.17	18	13	8.25	Green Island .. 10.10 1.62 9 13 ..					
Mean ..						18.37					CENTRAL SUB-DIVISION.					
											Rio Magno .. 29.78 4.83 31 13 ..					
											Headworks, Rio Cobre .. 20.12 5.00 31 12 7.71					
											Linstead .. 27.47 6.50 17 11 9.64					
											Berkshire Hall .. 22.86 4.96 18 14 5.43					
											Point Hill .. 35.10 8.70 17 9 12.80					
											Bellas Gate .. 36.29 12.43 31 9 ..					
											Croft Hill .. 28.68 11.50 30 12 5.65					
											Chapelton .. 37.40 9.06 31 10 8.47					
											Danks Works					
											Crooked River					
											Trout Hall .. 26.54 6.50 30 12 ..					
											Frankfield .. 24.13 3.80 31 11 ..					
Mean ..						12.75										

* Gauge blown over on the 31st.

WEST-CENTRAL DIVISION.	MAY, 1919.					SOUTHERN DIVISION.	MAY, 1919.				
	Total Fall	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Mocho, Clarendon	29.60	7.50	17	10	12.45	Morant Point L.H.	17.47	4.84	18	19	10.76
Spaldings	9.75	1.95	16	16	..	Pleasant Hill	28.73	8.32	15	14	7.74
Tan-y-bryn	..	..	..	..	..	East Prospect	30.69	5.80	31	19	..
Brokenhurst	15.20	3.90	19	11	10.02	Morant Bay	18.26	3.70	16	21	8.00
Christiana	11.11	3.69	16	13	11.50	Easington	22.66	6.40	15	12	6.33
Chudleigh	13.34	4.18	16	14	8.35	Bull Bay	5.72	1.74	18	6	4.13
Shooter's Hill	16.49	4.89	16	16	6.59	Bellevue	14.86	4.24	20	14	..
Kendal, Manchester	20.42	5.96	16	12	10.16	Gordon Town	9.32	2.25	19	7	8.23
Marshall's Pen	14.44	3.08	18	12	10.02	Hope Gardens	7.41	..	..	..	..
Mandeville	13.34	2.88	18	16	11.17	King's House Gar.	10.81	3.73	21	6	7.32
Carlton, Mandeville	10.95	2.72	18	15	11.17	Melrose	6.12	1.92	19	6	..
Retford	12.20	2.89	19	14	..	Halfway Tree	7.48	2.00	19	7	4.87
Fairfield, Manches-	..	..	..	..	..	Lunatic Asylum	7.82	2.62	19	8	3.57
ter	11.14	3.12	19	14	7.87	Glenmore Road	7.93	2.12	19	8	..
Ulster Spring	14.21	2.76	17	10	11.61	Kingston P.W.O.	7.04	1.93	19	10	4.63
Freeman's Hall	9.27	2.13	12	10	..	Plumb Point L.H.	12.87	5.60	19	9	4.80
Albert Town	9.80	3.90	16	10	10.55	Clifton Pen	8.99	2.81	18	5	..
Lowe River	12.50	2.42	17	8	8.69	Quarantine Station	13.52	5.65	13	8	..
Troy	10.18	2.50	15	9	17.69	Spanish Town	20.95	6.39	31	10	5.77
Windsor Pen, Trel.	12.33	3.16	18	19	10.96	Leigh Farm	..	..	..	..	..
Medina	..	..	..	..	..	Hog Hole, St.	..	..	..	..	..
Balaclava Police	..	..	..	..	..	Catherine	25.30	7.07	31	9	6.79
Station	6.91	1.95	15	..	14.41	Hartlands	21.49	5.12	18	9	4.34
Siloah	5.50	1.55	19	8	15.02	Belmont, Guana-	..	..	..	..	..
Appleton Estate	7.78	2.28	18	11	13.02	boa Vale	25.40	8.40	19	11	..
Magotty	7.85	2.55	19	8	14.85	Old Harbour	31.28	12.60	19	11	5.78
Dromilly Pen	14.80	3.15	18	9	..	May Pen	31.41	7.15	31	10	6.84
Spring Vale	12.75	3.00	17	12	13.57	Maysville	32.99	9.05	31	8	..
Springfield, St. Eli-	..	..	..	..	..	Dry River, Vere	23.63	7.62	17	13	4.11
zabeth	11.06	4.10	18	15	..	Toll Gate	31.05	7.05	18	13	..
Chesterfield, St.	..	..	..	..	..	Woodleigh	28.00	12.00	31	8	..
James	..	..	..	..	..	New Yarmouth	25.45	10.27	17	12	4.86
Kempshot	10.58	1.95	11	17	10.37	Exeter, Vere	21.65	10.85	17	8	..
Cambridge, St.	..	..	..	..	..	Milk River	21.10	7.00	17	9	5.84
James	15.09	2.29	13	23	..	Clarendon Pk. Ry.	..	..	..	..	..
Ducketts	..	..	..	..	..	St.	..	..	..	..	..
New Market, Police	..	..	..	..	..	Retrieve	9.83	1.97	18	11	..
St.	10.72	3.85	18	14	..	Hog Hole, S. Man.	24.51	6.00	31	10	..
The Bog, New	..	..	..	..	..	Stone's Hope	17.86	4.72	18	12	9.30
Market	9.95	2.36	18	19	..	Newport, Manches-	..	..	..	..	..
Kew Park	10.75	3.15	11	15	12.91	ter	19.01	6.20	18	17	8.37
Montpelier	11.53	1.25	13	24	..	Great Valley, Man.	13.90	4.35	31	12	6.99
Burnt Ground	12.09	1.75	22	23	15.44	Alligator Pond	13.25	4.65	31	9	5.86
Knockalva	10.61	2.08	13	20	..	Southfield, St. Eli-	..	..	..	..	..
Petersville	7.15	3.05	18	9	12.19	zabeth	13.91	3.83	19	11	..
Darliston	9.75	2.82	18	21	16.91	Lititz	10.34	2.49	17	8	..
Bluefields	7.61	1.67	31	17	11.70	Torrington	11.18	3.27	19	9	6.76
Whithorn	8.09	1.50	31	14	14.88	Bethlehem, St. Eliz.	8.25	2.14	18	6	7.64
Water Works Pen	11.40	2.00	31	20	..	Santa Cruz	5.53	1.60	19	5	12.81
Great Valley, Han.	..	..	..	..	..	Pedro Plains Police	..	..	..	..	..
Fontabelle, Westm.	..	..	..	..	..	St.	4.73	1.83	18	6	4.12
Morgan's Bridge	16.59	3.76	31	17	12.36	Mountainside	..	..	..	..	..
King's Vale Police	..	..	..	..	..	Black River	6.66	1.89	18	12	7.42
St.	15.95	2.30	26	21	9.76	Font Hill	8.10	2.20	19	13	8.84
Mean	12.27	..	..	..	..	Mount Edgecombe	8.10	1.66	18	17	8.23
						Sweet River	6.53	2.15	31	16	9.81
						Windsor Sav-la-Mar	7.61	2.90	31	13	9.46
						Orchard	8.11	3.28	31	14	..
						Sav-la-Mar	8.13	1.45	31	16	9.29
						Little London	13.42	10.00	31	13	..
						Retreat	13.80	7.94	31	10	9.09
						Negril Point L.H.	12.16	5.51	31	14	5.88
						Mean	14.68	..	..	..	..

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	MAY,	
	1919.	Average.
	In.	In.
North-Eastern Division	18.37	10.82
Northern "	12.75	7.07
West-Central "	12.27	12.49
Southern "	14.68	6.94
The Island	14.51	9.33

SHOCKS OF EARTHQUAKE IN MAY, 1919.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
I	hr. min. 10 0 p.m	I	Bowden.

The rains were very irregular over the Island; heavy rains fell in Clarendon, over 37 and 36 inches falling at Chapelton and at Bellas Gate respectively; and as the rains fell heavily in this part of the Island on the 31st the Rio Minho came down in flood, and the accounts from Vere reminds us of the flood-rains of June 6th, 1886.

On the other hand there was not much rain at several places on the northern shore; the lowest was 4.25 inches at Colchis Pen.

Two small barometric depressions appeared to the west of Jamaica; the first produced the rains between the 15th and 19th; and the second produced the rains between the 30th and June 1st; and it is surprising that their effect should be so irregular, producing flood rains in Clarendon and St. Thomas, and hardly affecting other parts of the Island.

SOLAR HALOES. On the morning of the 24th a very fine Solar Halo was seen which attracted the attention of the people in Kingston; Mr. Brennan took a series of measures and found that its radius was $22^{\circ} 26'$; the larger halo was also measured, and its radius was found to be 47° which is a little larger than the 46° given in the text-books.

MAXWELL HALL,
Government Meteorologist

Montego Bay P.O.

No. 496.



JAMAICA

WEATHER REPORT

FOR THE MONTH OF

JUNE, 1919.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range.
		ft.	in.	in.	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.956	29.928	81.7	84.2	86.1	79.3	6.8	87.0	7*	73.0	1*	14.0
Kingston ..	24	29.932	29.890	78.1	85.4	88.8	74.4	14.4	92.1	10*	72.2	25	19.9
Negril Point Light House ..	33	29.927	29.897	80.0	85.0	87.8	73.5	14.3	90.9	27	69.9	25	21.0
Castleton Gardens ..	496	..	..	70.7	83.9	87.8	69.8	18.0	91.0	..	65.0	24-25	26.0
Hope Gardens† ..	668	29.956	29.890	74.9	84.9	89.9	69.4	20.5	93.0	21*	68.0	24*	25.0
Bavinton, Stony Hill** ..	1,349	..	..	71.8	81.0	85.3	68.7	16.6	91.0	24	65.0	30	26.0
Stony Hill Indus. School ..	1,400	..	..	71.6	80.8	84.6	68.4	16.2	92.0	24	67.0	6*	25.0
Hill Gardens ..	4,900	25.27	25.258	65.2	67.2	70.1	58.4	11.7	74.0	21	57.0	25	17.0

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		ft.	°	°				in.	miles.		m.		m.	L.	M.	U.	L
Morant Pt. Light House ..	8	74.5	79	75.1	74	1.01	..	ENE	15.4	ENE	15.1	2.7	1.3	1.8	2.0	1.7	1.4
Kingston ..	24	71.5	80	72.9	67	0.45	262	E	6.5	SE	20.1	1.0	1.2	3.5	0.8	1.4	5.3
Negril Point Light House† ..	33	70.3	72	73.6	69	2.11	229	ENE	8.6	Var.	11.9	1.0	1.4	3.1	1.3	5.7	0.9
Castleton Gardens ..	496	68.7	93	79.2	68	4.65	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	68.4	79	68.8	59	1.10	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill ..	1,349	68.5	90	70.7	71	1.95	..	NE	..	SE	..	1.9	1.3	2.8	4.1	2.3	0.7
Stony Hill Indus. School ..	1,400	67.8	88	69.9	70	1.44	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	61.5	90	63.3	87	6.37	..	..	..	..	..	..	..	..	..	..	..

* and on other days.

† Negril Point Light House.

** Bavinton, Stony Hill.

Wind 11 p.m.

Mean Min. temp. on grass

Earth temp. 1 ft. below surface

" " 4 ft. "

† Hope Gardens. Bar read at 9 a.m. and 3 p.m.

ENE 7.5

65.2

80.0

78.3

THE RAINFALL.

The first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central Sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; the North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

JUNE, 1919.						JUNE, 1919.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
NORTH-EASTERN DIVISION.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	Liberty Hill ..	St. Ann's Bay ..	Seville ..	Richmond Estate ..	Llandovery ..	Runaway Bay ..	Brown's Town ..	Alexandria ..	Watt Town, St. Ann ..	Home Castle ..	Richmond Pen ..	Bryan Castle ..	Braco ..	Arcadia ..	Lancaster ..	Harmony Hall ..	Vale Royal ..	Colchis Pen ..	Georgia ..	Long Pond ..	Hyde Hall ..	Steelfield ..	Etingdon ..	Springfield ..	Falmouth ..	Florence Hall ..	Good Hope ..	Canaan ..	Content ..	Guilbro ..	Glasgow ..	Spring Estate ..	Montego Bay ..	Catherine Hall ..	Friendship ..	Retirement ..	King Gate ..	Blue Hole ..	Haughton Court ..	Lucea ..	Green Island ..	CENTRAL SUB-DIVISION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		Amount.	Date.																																												Rio Magno ..	Headworks, Rio ..	Cobre ..	Linstead ..	Berkshire Hall ..	Point Hill ..	Bellas Gate ..	Croft Hill ..	Chapelton ..	Danks Works ..	Crooked River ..	Trout Hall ..	Frankfield ..																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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WEST-CENTRAL DIVISION.	JUNE, 1919.					SOUTHERN DIVISION.	JUNE, 1919.				
	Total Fall	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.			In.	
Mocho, Clarendon	..	..	..	..	..	Morant Point L.H.	1.01	0.24	1	14	7.12
Spaldings ..	4.76	1.20	7	11	..	Pleasant Hill ..	3.00	1.02	2	14	..
Tan-y-bryn ..	...	..	..	..	..	East Prospect ..	8.52	4.45	1	14	7.27
Brokenhurst ..	4.52	1.60	2	9	13.68	Morant Bay ..	3.71	1.55	1	13	10.19
Christiana ..	2.04	0.54	1	9	8.16	Easington ..	2.26	0.85	2	7	10.28
Chudleigh ..	2.88	0.80	1	3	5.78	Bull Bay ..	1.10	1.10	1	1	5.41
Shooter's Hill ..	5.18	2.40	1	11	5.77	Bellevue ..	5.48	2.04	1	6	..
Kendal, Manchester	7.95	4.03	1	4	10.21	Gordon Town ..	2.85	1.10	1	4	5.88
Marshalls Pen ..	3.17	1.25	25	7	8.40	Hope Gardens ..	1.10	..	..	..	..
Mandeville ..	3.82	1.13	2	15	10.07	King's House Gar.	0.25	0.25	1	1	5.16
Carlton, Mandeville	3.10	1.00	2	11	..	Melrose ..	0.67	0.37	11	4	..
Retford ..	2.81	0.80	25	12	..	Halfway Tree ..	0.48	0.28	11	3	4.58
Fairfield, Manches-	0.80	0.24	16	12	9.08	Lunatic Asylum	0.35	0.21	2	3	5.90
ter ..	0.80	0.24	16	12	9.08	Glenmore Road ..	0.57	0.26	1	3	..
Ulster Spring ..	3.73	2.20	7	5	5.59	Kingston P.W.O.	0.45	0.22	2	3	4.38
Freeman's Hall ..	3.60	1.40	7	5	..	Plumb Point L.H.	2.68	1.00	*1	4	4.65
Albert Town ..	2.41	1.25	8	5	6.10	Clifton Pen ..	0.90	0.90	1	1	..
Lowe River ..	2.90	1.30	9	4	5.27	Quarantine Station	1.69	1.25	1	2	..
Troy ..	2.50	1.50	9	3	7.77	Spanish Town ..	1.90	1.38	1	3	..
Windsor Pen, Trel.	7.17	2.10	7	9	9.45	Leigh Farm ..	..	..	..	..	..
Medina ..	..	..	..	..	..	Hog Hole, St.	..	..	..	..	..
Balaclava Police	..	..	..	..	..	Catherine ..	2.05	1.42	1	3	5.81
Station ..	2.87	1.17	9	5	4.98	Hartlands ..	...	..	..	..	..
Siloah ..	2.60	0.75	9	..	5.67	Belmont, Guana-	..	..	..	..	..
Appleton Estate ..	2.89	1.57	9	8	7.20	boa Vale ..	2.46	1.10	1	6	..
Magotty ..	1.83	0.74	25	3	6.35	Old Harbour ..	1.88	1.18	2	2	..
Dromilly Pen ..	8.00	0.08	10	9	..	May Pen ..	2.38	1.56	2	3	7.66
Spring Vale ..	...	..	..	..	..	Maysville ..	2.60	2.10	2	2	..
Springfield, St. Eli-	..	..	..	..	..	Dry River, Vere ..	1.99	1.50	2	5	4.83
zabeth ..	..	...	...	..	..	Toll Gate ..	3.51	2.40	2	7	..
Chesterfield, St.	..	..	..	..	..	Woodleigh ..	..	..	..	..	..
James ..	5.30	1.80	25	6	..	New Yarmouth ..	2.53	2.02	2	2	7.16
Kempshot ..	6.85	1.93	4	19	9.29	Exeter, Vere ..	1.05	0.35	16	6	..
Cambridge, St.	..	..	..	..	..	Milk River ..	0.00	..	...	..	10.55
James ..	7.13	2.53	26	14	..	Clarendon Pk. Ry.	..	..	..	..	..
Ducketts ..	5.63	1.62	26	12	..	St. ..	..	..	..	..	..
New Market, Police	..	..	..	..	..	Retrieve ..	2.31	0.81	2	6	..
St. ..	2.58	0.95	25	4	..	Hog Hole, S. Man.	2.81	2.40	2	2	..
The Bog, New	..	..	..	..	..	Stone's Hope ..	3.22	1.52	2	7	10.18
Market ..	3.99	1.95	11	12	..	Newport, Manches-	..	..	..	..	..
Kew Park ..	3.54	0.71	10	10	..	ter ..	3.97	1.44	2	13	10.62
Montpelier ..	5.53	1.62	13	11	..	Great Valley, Man.	1.54	0.55	1	5	8.10
Burnt Ground ..	..	...	..	..	..	Alligator Pond ..	1.24	0.66	2	3	6.00
Knockalva ..	6.76	1.04	12	14	..	Southfield, St. Eli-	..	..	..	..	..
Petersville ..	3.04	1.69	11	7	8.54	zabeth ..	0.29	0.23	16	2	..
Darliston ..	3.90	1.90	25	8	10.38	Lititz ..	0.38	0.22	2	3	..
Bluefields ..	5.08	1.08	11	9	..	Torrington ..	0.48	0.25	2	2	4.41
Whithorn ..	1.95	0.75	19	8	9.58	Bethlehem, St. Eliz.	0.17	0.10	1	2	5.26
Water Works Pen	4.25	1.50	11	8	..	Santa Cruz ..	0.37	0.18	10	3	6.06
Great Valley, Han.	..	..	..	..	..	Pedro Plains Police	..	..	..	..	..
Fontabelle, Westm.	..	..	..	..	..	St. ..	0.55	0.30	1	2	4.30
Morgan's Bridge ..	7.78	2.30	10	8	10.61	Mountainside ..	0.51	0.51	2	1	..
King's Vale Police	..	..	..	..	..	Black River ..	0.81	0.49	1	4	4.02
St. ..	9.31	2.00	3	17	11.37	Font Hill ..	1.75	0.80	10	4	6.08
Mean ..	4.01	..	..	..	..	Mount Edgecombe	2.37	1.17	11	11	6.82
						Sweet River ..	..	..	..	..	..
						Windsor Sav-la-Mar	2.08	0.70	26	8	6.72
						Orchard ..	2.54	0.79	12	11	..
						Sav.-la-Mar ..	3.06	0.80	5	11	6.64
						Little London ..	1.73	0.45	9	6	..
						Retreat ..	1.78	1.25	9	3	7.95
						Negril Point L.H.	2.11	0.39	16	11	6.26
						Mean ..	1.88	..	..	..	..

NOTES.

COMPARATIVE TABLE OF RAINFALL.
Based upon the "Average" Stations only.

SHOCKS OF EARTHQUAKE IN JUNE, 1919.

DIVISIONAL AND ISLAND RAINFALL.	JUNE,		Date.	Standard Time (Approx.)		Inten- sity.	Notes: where felt, etc
	1919.	Average.		hr.	min.		
	In.	In.					
North-Eastern Division ...	5.02	10.75					No earthquakes this month.
Northern " ...	2.93	5.74					
West-Central " ...	4.01	9.48					
Southern " ...	1.88	6.93					
The Island ...	3.46	8.22					

The Island Rainfall was therefore less than half the average, and it was unevenly distributed. At some places 16 and even 19 inches were recorded, and at other places on the northern and southern shores very little rain fell. At Milk River and Browns Town no rain fell at all.

MAXWELL HALL,
Government Meteorologist

Montego Bay P.O.

1.05
4



JAMAICA

WEATHER REPORT

FOR THE MONTH OF

JULY, 1919.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.			
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.
		in.	in.	°	°	°	°	°	°		°	
Morant Pt. Light House	8	29.986	29.964	81.9	85.2	86.7	79.2	7.5	88.0	10*	74.5	14
Kingston	24	29.966	29.927	77.7	86.4	90.6	74.0	16.6	95.2	27	71.8	15
Negril Point Light House	33	29.969	29.945	79.0	81.4	88.9	72.6	16.3	91.5	7	70.6	8
Castleton Gardens	496	..	..	70.0	84.4	87.6	69.2	18.4	91.0	3*	66.0	13
Hope Gardens†	668	29.983	29.839	75.7	88.3	92.4	70.0	22.4	94.0	5*	69.0	1*
Bavinton, Stony Hill**	1,349	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Indus. School	1,400	..	..	72.0	82.3	85.7	68.4	17.3	91.0	27	67.0	3*
Kempshot	1,773	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	4,900	25.296	25.271	64.6	68.0	71.0	58.3	12.7	74.0	9*	56.0	30

STATIONS.	Eleva- tion.	Dew Point and Hu- midity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m				7 a.m.		3 p.m.		7 a.m.			3 p.m		
	ft.	°	°			in.	miles.		m.		m.	L.	M.	U.	L	M.	U.
Morant Pt. Light House	8	74.5	78	74.5	69	2.20	303	NEbE	12	NEbE	15	2.1	1.7	1.4	1.0	1.3	1.9
Kingston	24	70.9	80	73.6	66	0.60	216	NbE	4.3	SE	18.0	0.4	0.8	3.5	1.8	1.6	2.8
Negril Point Light House†	33	71.0	77	74.2	72	4.78	172	EE	6.3	SE	9.6	0.6	0.3	4.1	1.0	7.4	0.8
Castleton Gardens	496	67.7	93	77.1	79	8.93	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	66.5	73	67.2	50	0.42	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Indus. School	1,400	67.7	86	69.2	65	4.00	..	..	..	..	..	..	..	..	..	..	..
Kempshot	1,773	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	4,900	61.9	89	63.8	85	3.99	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar read at 9 a.m. and 3 p.m.
† Negril Point Light House. Wind 11 p.m. ENE 6.2
** Bavinton, Stony Hill. Mean Min. temp on grass 64.9
Earth temp. 1 ft. below surface 78.3
" " 4 ft. " 76.9

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

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NORTH-EASTERN DIVISION.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	Liberty Hill ..	St. Ann's Bay ..	Seville ..	Richmond Estate ..	Llandovery ..	Runaway Bay ..	Brown's Town ..	Alexandria ..	Watt Town, St. Ann ..	Home Castle ..	Richmond Pen ..	Bryan Castle ..	Braco ..	Arcadia ..	Lancaster ..	Harmony Hall ..	Vale Royal ..	Colchis Pen ..	Georgia ..	Long Pond ..	Hyde Hall ..	Steelfield ..	Etingdon ..	Springfield ..	Falmouth ..	Florence Hall ..	Good Hope ..	Canaan ..	Content ..	Gaillsbro ..	Glasgow ..	Spring Estate ..	Montego Bay ..	Catherine Hall ..	Friendship ..	Retirement ..	King Gate ..	Blue Hole ..	Haughton Court ..	Lucca ..	Green Island ..	CENTRAL SUB-DIVISION	Rio Magno ..	Headworks, Rio ..	Cobre ..	Linstead ..	Berkshire Hall ..	Point Hill ..	Bellas Gate ..	Croft Hill ..	Chapelton ..	Danks Works ..	Crooked River ..	Trout Hall ..	Frankfield ..	Mean ..																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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Manchioneal ..	3.74	0.71	20	18	6.46	3.06	2.10	12	3	1.76	0.76	0.36	30	3	2.03	2.85	0.77	24	5	2.68	2.98	1.40	14	5	..	1.89	0.94	7	5	..	2.15	1.50	12	4	2.16	2.85	0.95	14	6	2.90	1.65	0.65	12	5	1.81	0.80	0.30	8	4	1.69	0.98	0.30	..	7	2.00	

WEST-CENTRAL DIVISION.	JULY, 1919.					SOUTHERN DIVISION.	JULY, 1919.				
	Total Fall	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Mocho, Clarendon	1.50	1.13	13	2	5.00	Morant Point L.H.	2.20	0.40	13	16	3.23
Spaldings ..	4.13	1.40	25	13	..	Pleasant Hill ..	3.73	0.81	13	10	..
Tan-y-bryn ..	...	..	..	..	..	East Prospect ..	..	..	..	..	..
Brokenhurst ..	2.25	0.40	23	9	6.00	Morant Bay ..	2.98	0.54	14	15	5.80
Christiana ..	4.95	2.50	25	12	4.37	Easington ..	2.52	1.55	7	4	6.22
Chudleigh ..	3.77	1.65	25	10	4.26	Bull Bay ..	0.30	0.15	23	2	..
Shooter's Hill ..	3.38	1.00	14	10	5.41	Bellevue ..	1.18	0.45	7	8	..
Kendal, Manchester	4.76	1.88	8	6	5.45	Gordon Town ..	1.50	1.20	1	4	2.62
Marshalls Pen ..	1.51	0.54	8	4	4.94	Hope Gardens ..	..	..	..	..	..
Mandeville ..	1.71	0.62	15	7	5.91	King's House Gar.	..	..	..	..	..
Carlton, Mandeville	1.89	0.66	15	8	5.91	Melrose ..	0.36	0.23	15	3	..
Retford ..	1.55	0.55	18	8	..	Halfway Tree ..	0.69	0.49	14	2	1.85
Fairfield, Manches-	..	..	..	..	..	Lunatic Asylum	0.57	0.49	15	4	1.51
ter ..	0.90	0.30	29	8	3.05	Glenmore Road ..	0.46	0.21	14	4	..
Ulster Spring ..	8.65	1.75	15	9	4.45	Kingston P.W.O.	0.60	0.44	15	5	1.81
Freeman's Hall ..	3.91	1.04	10	8	..	Plumb Point L.H.	1.03	0.85	8	2	1.94
Albert Town ..	7.96	2.05	14	10	5.00	Clifton Pen ..	0.97	0.50	15	2	..
Lowe River ..	9.15	2.46	9	10	3.12	Quarantine Station	0.22	0.13	8	2	..
Troy ..	2.80	1.20	23	4	7.11	Spanish Town ..	1.39	0.62	4	4	..
Windsor Pen, Trel.	7.19	2.94	7	7	6.65	Leigh Farm ..	..	..	..	..	..
Medina ..	..	..	..	..	..	Hog Hole, St.	..	..	..	..	..
Balaclava Police	..	..	..	..	..	Catherine ..	0.70	0.26	10	5	2.67
Station ..	2.99	1.22	14	4	4.71	Hartlands ..	..	..	..	..	..
Siloab ..	2.10	0.50	9	5	6.55	Belmont, Guana-	..	..	..	..	..
Appleton Estate ..	1.06	0.35	15	5	..	boa Vale ..	3.55	1.45	23	8	..
Magotty ..	2.07	0.84	15	5	8.15	Old Harbour ..	0.30	0.30	11	1	..
Dromilly Pen ..	5.20	1.10	6	9	..	May Pen ..	2.57	1.35	28	6	3.72
Spring Vale ..	...	..	..	..	..	Maysville ..	1.73	0.85	25	3	..
Springfield, St. Eli-	..	..	..	..	..	Dry River, Vere ..	0.70	0.29	15	3	1.64
zabeth ..	..	..	..	..	..	Toll Gate ..	0.82	0.45	7	3	..
Chesterfield, St.	..	..	..	..	..	Woodleigh ..	..	..	..	..	..
James ..	12.50	3.50	7	14	..	New Yarmouth ..	0.80	0.30	15	2	..
Kempshot ..	5.16	0.94	11	15	6.21	Exeter, Vere ..	..	..	..	..	..
Cambridge, St.	..	..	..	..	..	Milk River ..	...	...	..	..	..
James ..	9.11	1.84	16	17	..	Clarendon Pk. Ry.	..	..	..	..	..
Ducketts ..	8.88	2.55	23	15	..	St. ..	..	..	..	..	..
New Market, Police	..	..	..	..	..	Retrieve ..	1.42	0.81	28	4	..
St. ..	9.56	1.67	14	17	..	Hog Hole, S. Man.	2.38	1.88	8	3	..
The Bog, New	..	..	..	..	..	Stone's Hope ..	0.90	0.32	8	4	4.30
Market ..	8.27	1.30	8	17	..	Newport, Manches-	..	..	..	..	..
Kew Park ..	..	..	..	..	..	ter ..	1.79	0.57	7	10	3.73
Montpelier ..	12.68	2.54	16	13	..	Great Valley, Man.	1.14	0.45	28	6	3.27
Burnt Ground ..	16.56	3.50	1	17	8.74	Alligator Pond ..	1.20	0.75	29	5	2.43
Knockalva ..	10.05	2.26	3	17	..	Southfield, St. Eli-	..	..	..	..	..
Petersville ..	7.57	1.80	30	16	7.17	zabeth ..	1.44	1.00	28	3	..
Darliston ..	9.04	2.22	7	15	11.87	Lititz ..	0.28	0.25	11	2	..
Bluefields ..	9.20	2.36	29	17	9.52	Torrington ..	1.98	1.12	14	6	2.64
Whithorn ..	4.65	0.55	30	14	10.73	Bethlehem, St. Eliz.	3.05	0.96	16	8	3.04
Water Works Pen	8.24	1.47	25	17	..	Santa Cruz ..	6.08	1.60	1	7	5.27
Great Valley, Han.	..	..	..	..	..	Pedro Plains Police	..	..	..	..	..
Fontabelle, Westm.	..	..	..	..	..	St. ..	6.40	3.60	29	2	1.48
Morgan's Bridge ..	13.66	2.67	25	14	11.16	Mountainside ..	1.79	0.35	23	7	..
King's Vale Police	..	..	..	..	..	Black River ..	2.11	1.19	23	8	4.82
St. ..	8.79	1.42	16	14	10.74	Font Hill ..	2.40	0.60	30	11	5.73
Mean ..	5.70	..	..	..	..	Mount Edgecombe	8.32	2.06	25	21	6.93
						Sweet River ..	5.42	1.70	24	13	7.52
						Windsor Sav-la-Mar	6.75	2.25	25	13	6.91
						Orchard ..	8.78	3.44	25	16	..
						Sav.-la-Mar ..	6.68	2.25	25	20	5.84
						Little London ..	3.68	0.75	25	12	..
						Retreat ..	7.09	1.25	30	12	7.65
						Negril Point L.H.	4.78	1.24	25	12	5.90
						Mean ..	3.45	..	..	..	..

COMPARATIVE TABLE OF RAINFALL.
Based upon the "Average" Stations only.)

SHOCKS OF EARTHQUAKE IN JULY, 1919

DIVISIONAL		JULY.		Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
AND		1919.	Average.		hr. min.		
ISLAND RAINFALL.		In.	In.				
North-Eastern Division	...	5.76	6.41				
Northern	...	2.42	3.21				
West-Central	...	5.70	7.85				
Southern	...	3.45	3.59				
The Island	...	4.33	5.26				

The Island Rainfall was only one inch below the average, but in many places, especially along the southern shore and Manchester, very little rain fell.

On the other hand 16 inches were recorded at Burnt Ground and Moore Town and places near these stations had 10 or 12 inches of rain.

There was a fall of hail at Unity Valley, St. Ann, on the 12th lasting 10 minutes but the stones were a "good size" and the fall was heavy.

Montego Bay P.O.

MAXWELL HALL,
Government Meteorologist



JAMAICA

WEATHER REPORT.

FOR THE MONTH OF
AUGUST, 1919.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45° and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
		in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House	8	29.996	29.968	82.6	85.6	87.5	79.9	7.6	88.5	22*	75.5	31	13.0
Kingston	24	.978	.926	77.6	87.7	91.8	74.5	17.3	97.5	9	71.3	30	26.2
Negril Pt. Light House	33	.980	.940	78.4	85.4	88.6	73.0	15.6	90.7	10	70.6	6	20.1
Castleton Gardens	496	..	..	70.0	84.5	88.9	69.0	19.9	93	20*	66	14*	27
Hope Gardens†	668	.992	.927	76.6	87.7	92.3	69.1	23.2	96	1	68	13	28
Bavinton, Stony Hill**	1,349	..	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Indus. School	1,400	..	..	72.5	81.6	86.5	69.2	17.3	91	15*	67	9*	24
Kempshot	1,773	29.991	29.953	72.7	77.6	83.1	70.9	12.2	85.0	15*	67.4	5	17.6
Hill Gardens	4,900	25.304	25.289	65.1	70.3	73.2	59.5	13.7	77	18*	57	8*	20

STATIONS.	Ele- va- tion.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.					7 a.m.	3 p.m.			7 a.m.	3 p.m.				
		°	°					m.	m.			L.	M.	U.	L.	M.	U.
Morant Pt.	ft.					in.	Mls.										
Light House	8	74.6	77	74.4	70	2.70	341	NE	15	NE	15	1.8	1.7	1.6	1.7	2.2	0.8
Kingston	24	69.9	77	72.8	62	0.89	233	NE	4.6	SE	19.0	0.5	0.3	3.2	2.4	1.8	2.1
Negril Point																	
Light House‡	33	70.1	75	73.9	68	6.53	185	NE	7.1	S	10.8	0.3	0.3	4.5	1.0	6.5	1.1
Castleton Gdns	496	67.9	93	74.2	70	4.12	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	66.4	69	68.6	54	1.88	..	..	..	..	..	..	..	..	..	..	..
Bavinton,																	
Stony Hill	1,349	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stony Hill																	
Indus. School	1,400	66.9	83	68.7	65	3.57	..	..	..	..	..	..	..	..	..	..	..
Kempshot	1,773	68.5	87	69.8	77	1.45	181	E	6.9	E	2.8	0.8	0.2	3.2	2.0	2.6	3.5
Hill Gardens	4,900	61.0	87	64.5	84	2.38	..	..	..	..	..	..	..	..	..	..	..

*and on other days.

‡Negril Point Light House.

**Bavinton, Stony Hill

†Hope Gardens. Bar read at 9 a.m. and 3 p.m.

Wind 11 p.m. NE 6 8

Mean Min. temp. on grass
Earth temp. 1 ft. below surface
" " 4 ft. "

THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central Sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; the North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.		AUGUST, 1919.													
		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.									
			Amount.	Date.											
		In.	In.			In.									
Manchioneal ..	3.72	0.70	8	17	7.17					Liberty Hill ..	2.07	1.16	30	6	2.82
Spring Valley ..	6.43	0.90	19	20	10.05					St. Ann's Bay ..	2.65	0.79	14	9	2.65
Bath ..	2.27	0.65	7	9	10.01					Seville ..	2.31	1.08	14	6	3.55
Priestman's River ..	6.60	1.40	12	10	..					Richmond Estate ..	..	..	..	..	..
Moore Town ..	14.96	3.00	17	20	15.54					Llandovery ..	1.96	0.67	14	7	2.86
Port Antonio ..	7.12	1.66	29	20	10.76					Runaway Bay ..	0.34	0.34	30	1	..
Fellowship ..	10.04	2.00	17	17	14.28					Brown's Town ..	1.69	0.93	24	3	3.98
Johnson River ..										Alexandria ..	1.39	0.32	6	9	..
Bridge ..	4.79	0.81	28	19	10.02					Watt Town, St. Ann ..	2.13	1.36	7	4	..
Shrewsbury ..	8.75	1.20	17	10	9.42					Home Castle ..	0.80	0.20	24	5	3.61
Cedar Valley, St. Thos. ..	3.84	1.50	29	9	9.76					Richmond Pen ..	3.57	1.32	24	5	4.89
Farm Hill ..										Bryan Castle ..	0.70	0.20	17	4	2.88
Hill Gardens ..	2.38	0.42	30	11	7.92					Braco ..	0.30	0.25	28	2	2.89
Chepstowe ..	5.40									Arcadia ..	1.07	0.75	24	3	3.54
Spring Garden ..	6.34	1.13	17	12						Lancaster ..	..	..	..	..	..
Buff Bay ..	6.78	1.70	17	15	5.70					Harmony Hall ..	..	..	..	..	..
Greenvale ..	3.13	1.15	17	8						Vale Royal ..	..	..	..	..	..
Belvedere, Portland ..	4.55	0.96	11	10						Colchis Pen ..	..	..	..	..	..
Mt. Holstein ..	4.69	2.64	7	12	6.69					Georgia ..	..	..	..	..	..
Irish Town ..	1.45	0.92	3	2	6.00					Long Pond ..	2.71	1.17	24	6	3.59
Rose Hill ..	1.81	0.54	24	4						Hyde Hall ..	1.50	0.65	24	6	4.63
Hardware Gap ..	2.97				6.73					Steelfield ..	1.89	1.10	24	3	3.63
Stony Hill Ind. ..										Etingdon ..	1.80	1.00	24	5	2.51
School ..	3.57	0.85	25	12	9.44					Springfield ..					
Castleton Gardens ..	4.12	1.40	31	12	10.03					Falmouth ..	0.91	0.56	24	2	2.77
Lawrence Tavern ..	4.14	1.05	31	9	8.58					Florence Hall ..					
Cedar Valley, Red Hill ..										Good Hope ..					
Zion Hill ..	3.61	1.30	8	6						Canaan ..	0.60	0.40	26	3	5.38
Agualta Vale ..	4.23	0.75	11	12	3.38					Content ..					
Water Valley ..	5.12	1.04	11	9	4.34					Guilsbro ..					
Platfield ..	7.52	1.95	23	8						Glasgow ..					
Richmond, St. Mary ..	0.45	0.13	9	8	4.97					Spring Estate ..	0.00				2.62
Highgate ..										Montego Bay ..	0.62	0.24	9	5	5.63
Hampstead, St. Mary ..	1.91	0.39	14	17	4.86					Catherine Hall ..					
Guy's Hill ..	2.15	1.20	24	4						Friendship ..	0.68	0.30	7	3	
Lucky Hill ..	1.24	0.54	29	6						Retirement ..	0.69	0.17	7	5	
Rio Hoe ..	1.77	1.07	29	5	6.27					King Gate ..	2.55	0.95	13	3	5.82
Unity Valley ..	2.33	1.37	29	6	6.49					Blue Hole ..	2.68	1.00	25	5	
Moneague ..	2.03	1.22	29	5	6.03					Haughton Court ..	1.60	0.60	8	6	7.21
Claremont ..	1.00	0.50	29	2	5.53					Lucea ..	1.82	0.61	25	8	6.86
Albion, St. Ann ..	1.61	0.43	24	7	6.10					Green Island ..	3.31	1.25	25	9	
Averham Park ..	0.86	0.65	29	4	4.86					CENTRAL SUB-DIVISION					
Mean ..	4.20									Rio Magno ..	5.83	1.83	29	6	
										Headworks, Rio Cobre ..	0.92	0.47	30	4	5.75
										Linstead ..	4.85	2.00	5	8	
										Berkshire Hall ..	4.79	1.47	24	7	5.62
										Point Hill ..	5.63	2.27	12	9	
										Bellas Gate ..	2.99	1.50	13	7	
										Croft Hill ..	1.85	0.80	12	4	7.96
										Chapelton ..	1.63	0.52	31	11	6.81
										Danks Works ..					
										Crooked River ..					
										Trout Hall ..	5.23	1.66	7	8	
										Frankfield ..	5.76	2.60	8	8	
										Mean ..	1.96				

WEST-CENTRAL DIVISION.	AUGUST, 1919.					SOUTHERN DIVISION.	AUGUST, 1919.				
	Total Fall	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Mocho, Clarendon	..	..	..	..	..	Morant Point L.H.	2.70	0.90	8	13	5.31
Spaldings	4.77	1.12	28	14	..	Pleasant Hill	2.93	1.15	4	9	..
Tan-y-bryn	..	..	..	..	..	East Prospect	4.79	1.10	6	10	6.60
Brokenhurst	2.85	0.50	20	10	7.12	Morant Bay	4.34	0.90	29	13	5.68
Christiana	2.47	0.54	28	15	6.44	Easington	3.42	1.05	29	10	6.17
Chudleigh	3.38	0.90	28	14	9.02	Bull Bay	0.44	0.29	29	2	2.82
Shooter's Hill	4.15	0.64	17	13	8.06	Bellevue	1.85	0.47	9	11	..
Kendal, Manchester	4.48	0.95	17	10	6.80	Gordon Town	1.31	1.00	9	3	4.47
Clifton	2.57	1.39	23	6	..	Hope Gardens	1.88	..	..	..	5.29
Marshalls Pen	1.67	0.44	23	6	8.38	King's House Gar.	2.73	..	..	..	5.67
Mandeville	2.63	0.83	23	11	8.03	Melrose	2.04	0.49	9	9	..
Carlton, Mandeville	2.02	0.56	31	8	8.03	Halfway Tree	1.18	0.50	9	4	3.54
Retford	1.60	0.39	23	12	..	Lunatic Asylum	0.86	0.23	31	6	2.39
Fairfield, Manches-	..	..	..	..	..	Glenmore Road	0.73	0.25	9	5	..
ter	1.99	0.56	23	12	5.37	Kingston P.W.O.	0.89	0.36	21	5	3.88
Ulster Spring	5.01	1.42	25	5	6.91	Plumb Point L.H.	0.74	0.32	9	3	3.50
Freeman's Hall	4.75	1.45	15	6	..	Clifton Pen	1.24	0.69	9	3	..
Albert Town	5.10	1.02	25	6	8.79	Quarantine Station	0.32	0.32	9	1	..
Lowe River	7.92	2.60	23	8	7.36	Spanish Town	1.71	0.60	6	7	..
Troy	6.05	1.00	23	12	10.07	Leigh Farm	..	..	..	..	..
Windsor Pen, Trel.	3.79	1.80	25	7	8.42	Hog Hole, St.	..	..	..	..	..
Medina	..	..	..	..	..	Catherine	0.80	0.32	30	3	4.53
Balaclava Police	..	..	..	..	..	Hartlands	0.90	0.60	9	2	3.20
Station	5.09	2.08	7	13	7.02	Belmont, Guana-	..	..	..	..	..
Siloah	7.14	1.50	21	10	11.34	boa Vale	2.01	1.08	30	6	..
Appleton Estate	..	..	..	..	..	Old Harbour	1.88	1.36	30	3	..
Magotty	9.55	1.73	7	10	10.65	May Pen	2.92	1.42	23	5	4.79
Dromilly Pen	..	..	..	..	..	Maysville	2.50	2.00	23	2	..
Spring Vale	..	..	..	..	..	Dry River, Vere	1.36	0.63	29	5	3.95
Springfield, St. Eli-	..	..	..	..	..	Toll Gate	2.05	0.70	6	7	..
zabeth	..	..	..	..	..	Woodleigh	..	..	..	..	..
Chesterfield, St.	..	..	..	..	..	New Yarmouth	1.12	0.62	29	4	3.86
James	..	..	..	..	..	Exeter, Vere	..	..	..	..	..
Kempshot	1.45	0.43	6	10	8.61	Milk River	..	..	..	..	..
Cambridge, St.	..	..	..	..	..	Clarendon Pk. Ry.	..	..	..	..	..
James	4.92	0.83	7	10	..	St.	..	..	..	..	..
Ducketts	..	..	..	..	..	Retrieve	2.26	0.87	6	8	..
New Market, Police	..	..	..	..	..	Hog Hole, S. Man.	2.06	0.50	6	7	..
St.	8.99	1.56	21	17	..	Stone's Hope	1.63	0.36	29	9	5.99
The Bog, New	..	..	..	..	..	Newport, Manches-	..	..	..	..	..
Market	9.29	2.13	18	15	..	ter	2.53	0.40	23	14	5.39
Kew Park	6.82	1.65	2	18	..	Great Valley, Man.	1.33	0.45	29	9	4.49
Montpelier	4.54	1.26	5	11	..	Alligator Pond	0.69	0.54	23	3	3.08
Burnt Ground	8.92	3.12	9	9	11.85	Southfield, St. Eli-	..	..	..	..	..
Knockalva	7.53	1.48	5	15	..	zabeth	2.50	2.14	23	5	..
Petersville	4.34	1.60	13	9	10.56	Lititz	1.68	0.93	23	7	..
Darliston	10.72	1.50	16	21	14.62	Torrington	3.48	1.25	6	8	4.55
Bluefields	7.65	1.24	17	18	10.96	Bethlehem, St. Eliz.	4.45	1.62	6	8	4.99
Whithorn	5.75	0.95	26	11	11.74	Santa Cruz	4.17	1.35	21	10	8.62
Water Works Pen	7.30	0.92	22	21	..	Pedro Plains Police	..	..	..	..	..
Fontabelle, Westm.	7.33	1.46	24	17	11.28	St.	0.89	0.40	27	3	2.53
Morgan's Bridge	8.88	1.60	21	16	11.70	Mountainside	2.97	0.78	30	10	..
King's Vale Police	..	..	..	..	..	Black River	3.61	0.78	21	11	5.95
St.	7.22	1.55	25	13	10.76	Font Hill	3.55	0.80	22	9	6.06
						Mount Edgecombe	4.12	0.99	24	13	8.19
						Sweet River	..	..	..	..	..
Mean	5.29	..	..	..	..	Windsor Sav-la-Mar	6.10	2.45	31	17	7.38
						Orchard	7.08	2.60	31	20	..
						Sav.-la-Mar	6.00	1.93	31	16	7.49
						Little London	4.24	1.43	19	11	..
						Retreat	5.96	2.00	21	12	8.70
						Negril Point L.H.	6.53	1.56	30	15	6.76
						Mean	2.73	..	..	..	..

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

SHOCKS OF EARTHQUAKE IN AUGUST, 1919.

DIVISIONAL. AND ISLAND RAINFALL.	AUGUST.		Date.	Standard Time (Approx.)	Inten- sity.	Notes: where felt, etc.
	1919.	Average.				
	In.	In.				
North-Eastern Division	...	4.20	...	...	...	...
Northern "	...	1.96	...	...	...	...
West-Central "	...	5.29	...	...	...	...
Southern	...	2.73	...	...	...	...
The Island	...	3.54	...	...	...	...

The rainfall for August was far below the average and the drought still continues. No rain fell at Spring Estate near Montego Bay and at many places in the Northern and Southern divisions less than one inch was recorded.

The extreme Max. shown on p. 1 of this Report for Kingston, 97°.5 on 9th August is the highest temperature yet recorded, The former highest was 96°.7 on 20th August, 1891.

Squall of August 9th.—On Aug. 8th 6.35 p.m. the following circular was issued—

"Washington reports strong indication of tropical disturbance over Eastern Carribean Sea. It will move Westward. From local observations there is no immediate cause for alarm." On the 9th 2.30 p.m.—"Washington reports tropical disturbance Eastern Carribean Sea approximate location latitude 15 longitude 69 moving Westward intensity unknown.—Caution advised vessels in Carribean Sea—Kingston, bar continues to fall. Weather disturbance probably 200 miles South of San Domingo." But it so happened that a squall broke over Jamaica at 3 p.m., that afternoon, doing considerable damage to the bananas in St. Mary and causing quite unnecessary alarm. It passed in a few hours and the bars. being normal next day the following circular was issued by the J.W.S. at 8.30 a.m. to relieve the alarm.—"Weather disturbance evidently passed on to Westward of Jamaica—Barometer now normal"—But nothing more was heard of the disturbance to the South of San Domingo.

CORRIGENDUM.—W.R. No. 479, July, 1919 p. 4 S. division—

Pedro Plains for 6.40 read 0.64 for 3.60 read 0.36

MAXWELL HALL,
Government Meteorologist.
per C. M. H.

Montego Bay P.O.

51.05
JA



JAMAICA

WEATHER REPORT.

FOR THE MONTH OF
SEPTEMBER, 1919.

The Bar. pressures at all the Stations, except the Hill Gardens are reduced to the standards of Kew, 32° gravity at Lat. 45° and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevensons Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.			
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.
		ft.	in.	in.	°	°	°	°	°			
Morant Pt. Light House	8	29.899	29.869	81.1	84.0	86.5	76.7	9.8	88.5	16*	71.0	22*
Kingston	24	29.885	29.837	76.7	85.3	89.9	74.0	15.9	92.8	4	70.1	20
Negril Pt. Light House	33	29.881	29.839	78.1	85.0	87.7	73.8	13.9	91.5	5*	70.7	3
Castleton Gardens	496	..	..	70.2	81.9	86.6	69.3	17.3	93	6*	65	30
Hope Gardens	668	29.899	29.831	76.0	85.1	89.6	68.9	20.7	93	5*	67	21*
Bavinton, Stony Hill**	1,349	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Indus. School	1,400	..	..	72.0	79.0	83.8	68.4	15.4	90	16	66	20*
Kempshot	1,773	29.895	29.860	73.0	76.3	82.6	70.4	12.2	87.9	9	68.7	22
Hill Gardens	4,900	25.275	25.251	64.8	66.8	70.1	58	12.1	74	11	56	9*

STATIONS.	Ele- va- tion.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
	ft.	°		°		in.	Mls.		m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt.																	
Light House	8	74.4	80	74.7	84	6.61	216	NE	16	ENE	12	2.4	2.2	1.5	2.5	1.7	1.2
Kingston	24	71.3	84	73.2	68	1.95	183	NE	4.0	SE	12.6	0.7	0.8	3.4	3.3	1.4	3.4
Negril Point																	
Light House†	33	72.2	82	72.7	66	1.94	206	E NE	6.7	NE	11.5	2.0	3.1	2.5	3.5	4.5	0.0
Castleton Gdns	496	50.7	51	74.9	74	8.27	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	68.8	79	70.1	60	4.12	..	..	..	..	..	..	..	..	..	..	..
Bavinton,																	
Stony Hill	1,349	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stony Hill																	
Indus. School	1,400	68.0	87	70.9	76	9.30	..	..	..	..	..	..	..	..	..	..	..
Kempshot	1,773	67.1	82	69.8	80	3.49	134	E	3.4	NE	2.4	0.7	0.7	3.3	2.2	3.0	3.3
Hill Gardens	4,900	60.7	86	63.2	87	8.29	..	..	..	..	..	..	..	..	..	..	..

*and on other days.

†Negril Point Light House.

**Bavinton, Stony Hill

†Hope Gardens. Bar read at 9 a.m. and 3 p.m.

Wind 11 p.m.

E 7.4

Mean Min. temp. on grass

Earth temp. 1 ft. below surface

" " 4 ft. "

THE RAINFALL.

The first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central Sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; the North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

SEPT., 1919.						SEPT., 1919.					
NORTH-EASTERN DIVISION.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	Liberty Hill ..	1.58	0.58	17	7	3.55
		Amount.	Date.									St. Ann's Bay ..	2.21	0.80	3	4	3.31
						Seville ..	2.05	0.90	17	3	3.60
						Richmond Estate ..					
						Llandovery ..	1.10	0.75	9	3	3.72
						Runaway Bay ..	0.37	0.14	13	3	
						Brown's Town ..	2.00	0.85	14	3	
						Alexandria ..	3.33	1.00	8	11	
						Watt Town, St. Ann ..	3.24	1.75	21	6	
						Home Castle ..					
						Richmond Pen ..	5.21	1.68	2	8	5.09
						Bryan Castle ..	2.05	0.95	9	5	3.44
						Braco ..	2.30	0.60	9	5	3.31
						Arcadia ..					
						Lancaster ..					
						Harmony Hall ..					
						Vale Royal ..					
						Colchis Pen ..					
						Georgia ..					
						Long Pond ..	1.90	0.60	8	5	3.71
						Hyde Hall ..	1.60	0.70	10	3	5.28
						Steelfield ..	1.95	0.60	8	6	4.25
						Etingdon ..	1.25	0.80	10	5	3.13
						Springfield ..					
						Falmouth ..	1.44	0.80	21	4	3.46
						Florence Hall ..	2.04	1.25	21	3	
						Good Hope ..					
						Canaan ..	6.63	2.05	8	10	7.96
						Content ..					
						Guildbro ..					
						Glasgow ..					
						Spring Estate ..	3.32	1.00	8	7	4.30
						Montego Bay ..	4.86	1.23	21	7	6.91
						Catherine Hall ..					
						Friendship ..	4.12	1.65	14	8	
						Retirement ..	3.55	1.61	14	12	
						King Gate ..	5.07	1.86	22	7	7.04
						Blue Hole ..	5.10	2.00	2	7	
						Haughton Court ..	4.65	1.45	2	10	6.38
						Lucea ..	6.56	3.00	2	11	7.68
						Green Island ..	2.51	0.73	19	7	
						CENTRAL SUB-DIVISION					
						Rio Magno ..	8.78	1.80	1	11	
						Headworks, Rio Cobre ..	3.30	1.50	25	12	6.54
						Linstead ..	4.41	1.14	18	11	
						Berkshire Hall ..	5.40	1.62	14	16	5.53
						Point Hill ..	6.19	2.10	9	9	
						Bellas Gate ..	2.81	0.71	8	8	
						Croft Hill ..	6.73	2.85	6	10	9.74
						Chapelton ..	7.23	2.52	21	17	7.91
						Danks Works ..					
						Crooked River ..					
						Trout Hall ..	12.80	3.50	5	13	
						Frankfield ..	7.07	2.10	26	10	
Mean ..	7.97					Mean ..	3.19				

WEST-CENTRAL DIVISION.	SEPT., 1919.					SOUTHERN DIVISION.	SEPT., 1919.				
	Total Fall	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.			In.	
Mocho, Clarendon	9.35	3.35	21	11	10.50	Morant Point L.H.	6.61	1.07	20	18	7.31
Spaldings	9.75	1.40	6	18	..	Pleasant Hill	9.65	1.60	14	17	..
Tan-y-bryn	..	..	..	..	..	East Prospect	9.31	3.40	20	17	8.06
Brokenhurst	..	..	..	..	..	Morant Bay	9.43	1.65	19	15	8.41
Christiana	7.05	1.66	25	17	9.97	Easington	11.46	7.05	19	13	8.73
Chudleigh	8.10	2.90	25	13	10.31	Bull Bay	2.17	0.75	17	4	4.70
Shooter's Hill	7.61	2.22	25	17	10.27	Bellevue	7.77	2.16	19	15	..
Kendal, Manchester	9.60	2.22	25	13	9.53	Gordon Town	..	..	..	..	..
Clifton	12.00	3.00	25	11	..	Hope Gardens	..	..	..	..	..
Marshalls Pen	11.14	5.00	25	15	8.79	King's House Gar.	2.56	..	..	..	..
Mandeville	10.72	2.88	6	19	10.04	Melrose	2.14	0.58	19	10	..
Carlton, Mandeville	8.27	1.46	25	20	10.04	Halfway Tree	1.81	0.58	19	9	5.09
Retford	6.89	2.40	25	17	..	Lunatic Asylum	2.43	1.26	19	7	4.72
Fairfield, Manches- ter	..	..	..	..	..	Glenmore Road	2.22	1.24	19	10	..
Ulster Spring	11.63	2.40	18	11	8.44	Kingston P.W.O.	1.95	0.80	19	10	4.18
Freeman's Hall	8.40	2.00	17	11	..	Plumb Point L.H.	4.85	2.50	19	10	3.81
Albert Town	7.97	2.10	18	10	11.20	Clifton Pen	1.77	0.78	20	4	..
Lowe River	9.60	2.75	14	10	10.39	Quarantine Station	3.00	1.80	19	7	..
Troy	12.96	4.00	18	11	13.77	Spanish Town	4.13	1.24	19	9	..
Windsor Pen, Trel.	6.42	1.35	2	12	9.06	Leigh Farm	..	..	..	6	..
Medina	..	..	..	..	..	Hog Hole, St. Catherine	4.44	1.86	25	8	6.32
Balaclava Police Station	10.66	1.84	7	17	10.31	Hartlands	3.40	1.20	19	6	..
Siloah	9.40	2.50	18	9	13.29	Belmont, Guana- boa Vale	6.06	1.35	21	16	..
Appleton Estate	9.40	1.72	7	15	11.50	Old Harbour	4.63	1.18	24	12	..
Magotty	8.42	1.46	18	10	11.84	May Pen	3.48	1.10	22	10	7.89
Dromilly Pen	..	..	..	..	..	Maysville	3.70	1.50	32	6	..
Spring Vale	..	..	..	..	..	Dry River, Vere	5.86	1.20	21	14	5.48
Springfield, St. Eli- zabeth	..	..	..	..	..	Toll Gate	6.89	1.80	18	13	..
Chesterfield, St. James	..	..	..	..	..	Woodleigh	..	..	..	..	..
Kempshot	3.49	0.65	21	17	9.64	New Yarmouth	5.38	1.10	12	12	5.72
Cambridge, St. James	7.80	2.00	18	15	..	Exeter, Vere	8.55	2.50	..	14	..
Ducketts	..	..	..	..	..	Milk River	..	..	..	..	..
New Market, Police St.	8.54	1.97	2	20	..	Clarendon Pk. Ry. St.	..	..	..	..	..
The Bog, New Market	9.60	2.75	2	13	..	Retrieve	3.13	0.50	23	..	..
Kew Park	..	..	..	..	..	Hog Hole, S. Man.	3.96	2.10	26	7	..
Montpelier	5.08	1.40	27	11	..	Stone's Hope	6.50	1.52	25	10	8.30
Burnt Ground	8.02	1.72	1	10	..	Newport, Manches- ter	5.34	0.95	25	16	7.49
Knockalva	12.17	2.53	18	15	..	Great Valley, Man.	4.57	2.20	25	12	6.63
Petersville	8.73	1.98	21	10	9.83	Alligator Pond	4.08	1.40	25	10	4.98
Darliston	10.70	2.06	5	20	13.79	Southfield, St. Eli- zabeth	5.23	2.87	25	10	..
Bluefields	5.67	1.24	21	9	11.04	Lititz	3.75	2.05	25	10	..
Whithorn	6.54	1.24	24	9	12.06	Torrington	3.18	0.57	26	11	6.42
Water Works Pen	6.58	1.33	1	12	..	Bethlehem, St. Eliz.	6.87	2.17	26	17	6.78
Fontabelle, Westm.	..	..	..	..	..	Santa Cruz	9.25	2.30	22	13	10.33
Morgan's Bridge	10.92	6.41	24	8	12.18	Pedro Plains Police St.	1.80	1.05	25	7	4.90
King's Vale Police St.	8.77	2.20	1	11	11.44	Mountainside	5.24	1.95	24	8	..
Mean	8.88	..	..	..	..	Black River	1.23	0.40	21	8	5.75
						Font Hill	1.90	0.75	22	6	7.11
						Mount Edgecombe	3.15	1.21	21	11	8.39
						Sweet River	..	..	..	..	..
						Windsor Sav-la-Mar	5.09	1.35	22	10	7.26
						Orchard	3.69	0.97	22	10	..
						Sav.-la-Mar	4.80	1.75	21	9	6.96
						Little London	4.24	2.24	18	9	..
						Retreat	4.46	1.20	24	10	8.28
						Negril Point L.H.	1.94	0.51	24	14	7.51
						Mean	4.76	..	..	..	..

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

SHOCKS OF EARTHQUAKE IN SEPT, 1919

DIVISIONAL AND ISLAND RAINFALL.	SEPT.		Date.	Standard Time (Approx.)	Inten- sity.	Notes: where felt, etc
	1919.	Average.				
	In.	In.				
North-Eastern Division	7.97	8.68		No Earthquakes		this month.
Northern	3.19	5.70				
West-Central	8.88	10.78				
Southern	4.76	6.49				
The Island	6.20	7.91				

The rainfall was somewhat below the average but except along the Northern and Southern shores most stations had good rains.

The West Indian Hurricane of Sept 3rd to 14th.

On Sept. 3rd, 2 p.m. the following circular was issued—"Weather disturbance east of Jamaica near to Porto Rico at noon. Moving probably westward. Barometer falling—Care should be taken."—At 4 p.m.—"Report from Washington 3.30 p.m. states disturbance of unknown intensity near and S. of Porto Rico; direction of movement not certain but apparently west or west-north-east—Caution advised pending further information." And on Sept. 4th at 4 p.m.—"Report received from Washington at 3.45 p.m. states the weather disturbance this morning over eastern San Domingo, moving north-west thus far and will probably pass west of Turk's Island Thursday night. According to local observations the barometer at Morant Point has been rising with a north wind of decreasing velocity; consequently disturbance will pass away from Jamaica."

The cyclone continued on a north-west course to Cat Island sinking the Ward Line Steamer "Corydon" in the Bahama Channel, then instead of going north and east-north-east as their general track lies, it was apparently repelled by the Florida coast and moving against the Gulf Stream turned south-west into the Gulf, and overtaking the "Valbanere," which had already encountered the storm when it was moving north-west and the vessel was trying to make Havana, sunk it in the quicksands off the Rebecca Shoal lighthouse. Passing between Havana and Key West and doing great damage to all the South Florida towns as well, it encountered and sank the "Bayoronto" and "Barnstable" and taking the usual track crossed the Gulf going ashore between Galveston and Corpus Christi, wrecking the latter town and sinking or driving ashore numerous vessels.

It is described as being the most terrific hurricane in the history of Key West. On the 9th and 10th when the storm was developing and moving south-west to the Gulf the barometers at the west end of Jamaica again fell to a tenth below the mean.

MAXWELL HALL,
Government Meteorologist
per C. M. H.

Montego Bay P.O.

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JAMAICA

WEATHER REPORT.

FOR THE MONTH OF

OCTOBER, 1919.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
		ft.	in.	in.	°	°	°	°	°	°	°	°	°
Morant Pt. Light House	8	29.933	29.891	81.3	84.0	86.4	78.3	8.1	88.0	6*	71.5	13	16.5
Kingston	24	29.919	29.862	74.4	84.2	88.6	72.6	16.0	92.5	7	69.6	31	22.9
Negril Pt. Light House	33	29.920	29.871	77.0	83.6	88.5	72.3	16.2	92.6	7	70.3	26	22.3
Castleton Gardens	496	..	..	69.9	82.8	87	69	18	92	5	66	29*	26
Hope Gardens	668	29.989	29.862	73.6	85.1	88.7	68.5	20.2	92	19	66	28*	26
Bavinton, Stony Hill**	1,349	..	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Indus. School	1,400	..	..	70.9	78.8	83.3	68.4	14.9	88.0	3*	67	17*	21
Kempshot	1,773	29.930	29.885	72.0	76.2	80.6	70.7	9.9	84.3	1	68.9	16	15.4
Hill Gardens	4,900	25.284	25.255	64.4	66.4	70.1	58.6	11.5	75	22	56	16	19

STATIONS.	Elevation.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.					7 a.m.	3 p.m.			7 a.m.	3 p.m.				
	ft.	°	°			in.	Mls.		m.			L.	M.	U.	L.	M.	U.
Morant Pt. Light House	8	74.0	79	74.0	72	6.85	244	NNE	11	NNE	12	2.0	1.4	3.0	1.3	1.8	1.6
Kingston	24	70.9	89	74.1	72	7.63	157	N	4.3	SE	13.0	0.7	1.2	4.1	3.7	1.9	2.8
Negril Point Light House†	33	70.4	79	73.6	72	8.87	177	NE	7.7	E	8.8	0.6	1.5	5.0	2.0	6.6	1.0
Castleton Gdns	496	68.1	94	74.3	75	3.85	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	67.3	78	69.7	60	6.85	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Indus. School	1,400	67.4	89	71.2	78	5.52	..	..	..	..	..	..	..	..	..	..	..
Kempshot	1,773	68.2	88	70.2	82	3.12	187	E	9.4	ENE	4.1	1.8	1.4	3.0	2.6	2.2	3.2
Hill Gardens	4,900	59.9	87	63.0	90	5.13	..	..	..	..	..	..	..	..	..	..	..

*and on other days.

†Negril Point Light House.

**Bavinton, Stony Hill

†Hope Gardens. Bar read at 9 a.m. and 3 p.m.

Wind 11 p.m. EN.E. 6 7

Mean Min. temp. on grass

Earth temp. 1 ft. below surface

" " 4 ft. "

WEST-CENTRAL DIVISION.	OCT., 1919.					SOUTHERN DIVISION.	OCT., 1919.				
	Total Fall	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.			In.	
Mocho, Clarendon	11.55	3.20	15	15	15.90	Morant Point L.H.	6.85	2.23	17	20	11.71
Spaldings	6.00	1.45	15	22	..	Pleasant Hill	11.25	1.87	16	14	..
Tan-y-bryn	..	..	..	..	..	East Prospect	11.48	2.95	15	17	10.99
Brokenhurst	..	..	..	..	..	Morant Bay	8.18	2.26	17	13	14.22
Christiana	7.20	1.67	15	21	12.94	Easington	6.61	2.65	15	9	14.22
Chudleigh	5.52	1.65	15	14	11.73	Bull Bay	5.03	3.20	15	5	10.26
Shooter's Hill	..	..	..	..	..	Bellevue	7.92	4.53	15	14	..
Kendal, Manchester	6.85	2.36	15	10	14.96	Gordon Town	8.25	3.00	15	8	14.15
Clifton	11.11	4.00	15	15	..	Hope Gardens	..	..	..	..	..
Marshalls Pen	8.40	2.00	15	12	12.75	King's House Gar.	6.44	..	..	..	..
Mandeville	8.88	2.53	15	20	16.56	Melrose	7.17	3.32	15	12	..
Carlton, Mandeville	7.88	2.22	15	18	16.56	Halfway Tree	7.59	3.58	15	12	9.90
Retford	8.83	2.03	15	20	..	Lunatic Asylum	6.60	4.70	15	10	7.93
Fairfield, Manches- ter	..	..	..	..	..	Glenmore Road	6.84	4.74	15	12	..
Ulster Spring	20.88	2.76	16	15	10.19	Kingston P.W.O.	7.63	5.66	15	12	8.15
Freeman's Hall	16.30	2.40	13	13	..	Plumb Point L.H.	8.75	6.73	15	11	7.67
Albert Town	17.09	3.05	16	15	13.10	Clifton Pen	..	..	..	..	..
Lowe River	18.65	2.10	17	16	12.37	Quarantine Station	10.52	7.40	15	9	..
Troy	11.40	2.00	9	15	16.50	Spanish Town	6.64	3.56	15	8	..
Windsor Pen, Trel.	7.50	1.55	1	11	9.49	Leigh Farm	..	..	..	..	..
Medina	..	..	..	..	..	Hog Hole, St. Catherine	11.40	3.13	13	14	10.09
Balaclava Police Station	18.82	4.40	9	19	13.38	Hartlands	8.49	4.55	15	7	..
Siloah	10.87	1.80	12	13	16.67	Belmont, Guana- boa Vale	8.44	3.29	15	16	..
Appleton Estate	17.24	3.30	9	17	14.04	Old Harbour	..	..	..	..	..
Magotty	11.50	1.57	20	15	15.30	May Pen	9.63	2.45	15	15	11.57
Dromilly Pen	..	..	..	..	..	Maysville	8.45	2.72	15	11	..
Spring Vale	..	..	..	..	..	Dry River, Vere	9.81	4.59	15	10	9.21
Springfield, St. Eli- zabeth	..	..	..	..	..	Toll Gate	9.47	3.00	15	13	..
Chesterfield, St. James	16.73	1.73	1	24	..	Woodleigh	..	..	..	..	..
Kempshot	3.12	0.64	6	12	9.60	New Yarmouth	8.79	3.49	15	8	9.20
Cambridge, St. James	7.83	1.60	3	14	..	Exeter, Vere	..	..	..	..	..
Ducketts	11.83	2.06	2	14	..	Milk River	7.65	4.15	16	5	7.56
New Market, Police St.	11.41	1.34	25	24	..	Clarendon Pk. Ry. St.	..	..	..	..	..
The Bog, New Market	13.72	1.62	7	23	..	Retrieve	5.79	2.29	15	9	..
Kew Park	8.78	1.17	4	16	..	Hog Hole, S. Man.	9.36	2.78	14	8	..
Montpelier	2.94	0.62	13	9	..	Stone's Hope	8.11	2.46	15	11	13.35
Burnt Ground	8.50	1.75	5	13	10.57	Newport, Manches- ter	8.85	2.70	15	15	13.26
Knockalva	5.61	0.72	25	18	..	Great Valley, Man.	6.73	1.53	15	16	11.37
Petersville	9.09	1.34	1	16	11.33	Alligator Pond	6.68	1.95	27	11	8.77
Darliston	8.95	1.02	1	22	15.71	Southfield, St. Eli- zabeth	6.05	1.52	28	11	..
Bluefields	18.80	2.09	17	27	10.95	Lititz	4.62	1.22	15	16	..
Whithorn	8.12	1.25	14	15	11.93	Torrington	13.02	2.30	24	13	11.76
Water Works Pen	11.43	1.65	12	23	..	Bethlehem, St. Eliz.	13.40	1.46	10	20	11.86
Fontabelle, Westm.	..	..	..	..	..	Santa Cruz	11.33	1.46	12	18	12.01
Morgan's Bridge	15.40	2.06	5	17	12.94	Pedro Plains Police St.	7.36	1.40	10	10	6.60
King's Vale Police St.	5.00	1.05	2	12	10.25	Mountainside	10.60	1.90	10	16	..
						Black River	8.01	1.85	11	19	8.74
						Font Hill	8.65	1.20	2	18	9.95
						Mount Edgecombe	13.40	2.63	1	24	10.05
						Sweet River	..	..	..	..	..
						Windsor Sav-la-Mar	6.06	2.00	25	17	8.40
						Orchard	7.77	1.75	25	21	..
						Sav-la-Mar	9.41	1.90	25	26	8.99
						Little London	13.89	4.86	25	19	..
						Retreat	11.79	3.22	25	19	10.96
						Negril Point L.H.	8.87	2.85	11	18	8.36
Mean	10.72	..	..	..	..	Mean	8.86	..	..	..	..

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	OCT.	
	1919.	Average.
	In.	In.
North-Eastern Division ...	7.83	13.22
Northern " ...	3.35	7.46
West-Central " ...	10.72	12.02
Southern " ...	8.86	10.28
The Island ...	7.69	10.74

SHOCKS OF EARTHQUAKE IN OCT, 1919.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
I	12.55 a.m.	I	Kingston: NW & SE .007 duration 3 seconds.
		II	Mt. Holstein: double shock
		II	Glengoffe and Hope Bay.
		I	Unity Valley: double, very slight. Manningsfield, Vere, Siloah.

The rainfall as shown in the above table was not up to the average, taking the Island as a whole.

In the north-eastern division heavy rains fell at Fellowship (29 inches) while stations near there had average rains. The rains lightened going west until in St. Ann they were 4 to 5 inches short of the average. The most noticeable cases in this Division being Mt. Holstein, Hill and Castleton Gardens all being 11 to 13 inches below their average. The whole of the Northern Division, as shown in the table was 4 inches and many stations 6 to 7 inches short. Around St. Ann's Bay the rains were average.

In the West Central Division heavy rains fell at Ulster Spring and Balaclava but many stations were 4 to 8 inches below the average. The Southern division had good rains, though almost all Stations, like the rest of the Island, were a little below the average.

On the 14 and 15th a small depression, which either formed or passed over Jamaica, threw down rains over the whole Island almost every station having its heaviest fall on the latter date; from 12½ inches at Fellowship to 0.40 inch at Arcadia.

This failure of the October rains seems to show the commencement of a drought which has been anticipated for some time according to the Solar Cycle.

Montego Bay P.O.

MAXWELL HALL,
Government Meteorologist,
per C.M.H.



JAMAICA

WEATHER REPORT.

FOR THE MONTH OF
NOVEMBER, 1919.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45° and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
		ft.	in.	in.	°	°	°	°	°	°	°	°	°
Morant Pt. Light House	8	29.933	29.893	79.6	82.2	84.0	75.8	8.2	86.5	1	66.0	14	20.5
Kingston ..	24	29.914	29.854	72.0	85.0	88.1	70.8	17.3	91.8	26	64.8	12	27.0
Negril Pt. Light House	33	29.919	29.866	73.9	83.4	86.5	70.1	16.4	92.9	28	64.6	12	28.3
Castleton Gardens ..	496	..	..	63.8	81.5	85.7	68.0	17.7	91	8	63	16	28
Hope Gardens ..	668	29.946	29.864	70.7	85.1	88	66.7	21.3	93	7*	61	11	32
Bavinton, Stony Hill**	1,349	..	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Indus. School	1,400	..	..	69.6	77.1	81.2	67.1	14.1	87	26	65	20*	22
Kempshot ..	1,773	29.930	29.879	69.6	74.4	78.4	68.4	10.0	84.8	7	66.2	19	18.6
Hill Gardens ..	4,900	25.232	25.201	63.5	64.4	67.6	55.5	12.1	72	28	52	12	20

STATIONS.	Ele- va- tion.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
ft.	°		°		in.	Mls.		m.		m.	L.	M.	U.	L.	M.	U.	
Morant Pt.																	
Light House	8	71.2	75	71.5	70	2.15	261	N	19	NNE	16	2.1	2.0	0.3	1.8	1.7	0.6
Kingston	24	68.1	88	71.1	63	0.41	139	N	4.8	SSE	8.5	0.8	1.3	0.5	3.1	1.4	0.5
Negril Point																	
Light House‡	33	68.3	83	70.1	64	2.19	210	NE	7.3	NE	11.3	0.3	1.5	0.6	0.6	4.5	0.1
Castleton Gdns	496	66.7	93	72.0	74	13.24	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	66.2	92	61.2	90	3.74	..	..	..	..	..	..	..	..	..	..	..
Bavinton,																	
Stony Hill	1,349	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stony Hill																	
Indus. School	1,400	64.8	85	67.8	72	8.84	..	..	..	..	..	..	..	..	..	..	..
Kempshot	1,773	65.5	86	67.0	78	1.23	176	E	6.5	NE	6.0	3.1	0.6	0.9	2.2	4.2	0.0
Hill Gardens	4,900	64.2	78	69.1	59	13.76	..	..	..	..	..	..	..	..	..	..	..

*and on other days.

†Negril Point Light House.

**Bavinton, Stony Hill

†Hope Gardens. Bar read at 9 a.m. and 3 p.m.

Wind 11 p.m. N.E. 6.8

Mean Min. temp. on grass

Earth temp. 1 ft. below surface

" " 4 ft. "

THE RAINFALL.

The first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central Sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; the North-Eastern and West-Central divisions are the remaining parts of the island bounded by the sea and the other divisions.

Nov., 1919.						Nov., 1919.					
NORTH-EASTERN DIVISION.						Total fall.		Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
						Amount.	Date.	Amount.	Date.		
Manchioneal ..	In. 3.34	In. 1.10	2	12	14.23						
Spring Valley ..	4.74	1.00	2	12	22.24						
Bath ..	8.36	1.65	9	14	12.95						
Priestman's River ..	5.69	1.10	16	13	..						
Moore Town ..	20.20	5.40	28	13	34.15						
Port Antonio ..	5.47	1.48	9	11	16.39						
Fellowship ..	9.94	2.11	19	21	27.19						
Johnson River ..											
Bridge ..	3.90	1.10	25	11	6.70						
Shrewsbury ..	22.06	6.10	25	12	30.11						
Cedar Valley, St. Thos. ..	6.84	1.50	23	10	13.09						
Farm Hill ..	..	..	..	..	..	
Hill Gardens ..	13.76	6.05	21	13	14.71						
Chepstowe ..	..	..	..	..	..	
Spring Garden ..	..	..	..	..	..	
Buff Bay ..	7.97	3.10	80	17	16.12						
Greenvale ..	32.62	7.90	28	15	31.57						
Belvedere, Portland ..	..	..	..	..	..	
Mt. Holstein ..	17.67	3.65	20	20	26.11						
Irish Town ..	5.41	2.57	10	4	11.02						
Rose Hill ..	9.56	5.20	21	8	..						
Hardware Gap ..	10.38	..	..	..	13.02						
Stony Hill Ind. ..	..	..	..	..	..	
School ..	8.84	2.64	20	13	7.14						
Castleton Gardens ..	13.24	3.16	30	14	14.42						
Lawrence Tavern ..	7.08	2.20	20	11	8.33						
Cedar Valley, Red Hill ..	..	..	..	..	..	
Zion Hill ..	7.63	2.86	1	7	..						
Agualta Vale ..	7.58	2.65	30	19	4.24						
Water Valley ..	9.93	4.60	30	14	9.95						
Platfield ..	10.60	6.74	21	8	..						
Richmond, St. Mary ..	14.21	7.84	25	15	11.65						
Highgate ..	..	..	..	..	..	
Hampstead, St. Mary ..	13.50	5.48	30	16	21.06						
Guy's Hill ..	..	..	..	..	..	
Lucky Hill ..	..	..	..	..	..	
Rio Hoe ..	8.19	2.28	20	12	9.40						
Unity Valley ..	5.64	1.70	20	10	9.01						
Moneague ..	6.47	2.32	20	12	9.90						
Claremont ..	7.35	2.20	30	7	10.46						
Albion, St. Ann ..	7.87	1.70	20	17	9.74						
Averham Park ..	8.74	1.53	30	11	11.85						
Mean ..	10.40	..	..	..	..		
						NORTHERN DIVISION.					
						Total fall.		Greatest fall in 24 hours.			
						In.		In.			In.
Port Maria ..	5.87	1.71	30	18	10.69						
Ocho Rios ..	6.54	1.95	29	12	7.73						
Bogue, Ocho Rios ..	7.49	2.50	30	13	16.14						
Rockfield ..	8.40	1.93	20	15	..						
Drax Hall ..	..	..	..	..	..	
Liberty Hill ..	6.72	2.00	30	12	12.96						
St. Ann's Bay ..	8.59	3.80	30	10	9.00						
Seville ..	5.75	2.00	30	10	9.80						
Richmond Estate ..	..	..	..	..	..	
Llandoverly ..	5.45	2.37	30	8	9.16						
Runaway Bay ..	3.15	1.25	30	6	..						
Brown's Town ..	7.31	1.78	28	8	10.58						
Alexandria ..	4.19	1.96	7	9	..						
Watt Town, St. Ann ..	2.16	1.00	20	5	..						
Home Castle ..	5.20	1.40	..	11	7.35						
Richmond Pen ..	3.53	2.05	20	10	5.99						
Bryan Castle ..	7.05	3.00	25	5	6.40						
Braco ..	5.95	3.65	25	8	5.88						
Arcadia ..	5.60	2.10	30	6	6.47						
Lancaster ..	..	..	..	..	..	
Harmony Hall ..	..	..	..	..	..	
Vale Royal ..	3.65	1.00	..	9	7.30						
Colchis Pen ..	2.27	1.15	20	5	5.81						
Georgia ..	2.89	0.90	30	6	..						
Long Pond ..	3.47	1.05	30	8	..						
Hyde Hall ..	2.70	1.00	30	5	..						
Steelfield ..	2.50	0.95	30	5	..						
Etingdon ..	2.80	1.05	30	5	..						
Springfield ..	..	..	..	..	..	
Falmouth ..	2.57	0.98	25	5	4.92						
Florence Hall ..	1.71	0.75	25	3	6.86						
Good Hope ..	..	..	..	..	..	
Canaan ..	2.37	0.32	20	8	5.03						
Content ..	..	..	..	..	..	
Guildsbro ..	..	..	..	..	..	
Glasgow ..	..	..	..	..	..	
Spring Estate ..	1.46	0.92	4	4	4.87						
Montego Bay ..	2.18	0.90	2	9	4.30						
Catherine Hall ..	..	..	..	..	..	
Friendship ..	1.38	0.35	6	7	..						
Retirement ..	1.79	0.86	6	9	..						
King Gate ..	1.05	0.60	4	5	3.86						
Blue Hole ..	..	..	..	..	..	
Haughton Court ..	1.65	1.05	4	4	4.25						
Lucea ..	1.19	0.62	4	6	5.71						
Green Island ..	3.63	1.58	2	5	..						
						CENTRAL SUB-DIVISION					
						Rio Magno ..	..	..	..	..	..
						Headworks, Rio Cobre ..	0.47	0.22	20	3	4.74
						Linstead ..	..	..	..	..	..
						Berkshire Hall ..	7.36	2.95	20	11	8.22
						Point Hill ..	..	..	..	..	..
						Bellas Gate ..	..	..	..	..	..
						Croft Hill ..	4.01	1.50	7	6	8.41
						Chapelton ..	1.18	0.27	30	10	4.49
						Danks Works ..	..	..	..	..	..
						Crooked River ..	2.95	1.30	1	4	..
						Trout Hall ..	..	..	..	..	..
						Frankfield ..	3.30	1.17	7	7	..
						Mean ..	4.18	..	..	..	..

WEST-CENTRAL DIVISION.	Nov., 1919.					SOUTHERN DIVISION.	Nov., 1919.				
	Total Fall	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Mocho, Clarendon	1.95	1.20	..	2	5.10	Morant Point L.H.	2.15	1.02	30	12	6.90
Spaldings ..	3.02	1.28	16	10	..	Pleasant Hill ..	5.36	1.61	30	9	..
Tan-y-bryn ..	..	..	..	..	..	East Prospect ..	4.06	1.75	30	7	11.94
Brokenhurst ..	..	..	..	..	..	Morant Bay ..	2.24	0.90	30	7	6.44
Christiana ..	2.36	1.08	6	5	6.82	Easington ..	1.15	0.50	7	4	5.35
Chudleigh ..	2.91	1.13	13	9	9.07	Bull Bay ..	0.15	0.15	21	1	3.71
Shooter's Hill ..	3.24	0.86	7	7	9.12	Bellevue ..	4.15	1.66	20	12	..
Kendal, Manchester	4.13	1.50	7	5	5.99	Gordon Town ..	6.50	2.85	21	4	9.57
Clifton ..	6.37	2.06	15	4	..	Hope Gardens ..	3.74	..	..	..	..
Marshall's Pen ..	4.29	1.95	7	5	6.16	King's House Gar.	3.13	..	..	..	3.31
Mandeville ..	4.37	1.55	15	9	6.29	Melrose ..	1.97	1.07	21	4	..
Carlton, Mandeville	3.26	1.25	13	6	6.29	Halfway Tree ..	1.74	0.68	20	3	3.66
Retford ..	4.82	1.62	7	9	..	Lunatic Asylum	0.40	0.25	30	4	3.57
Fairfield, Manches-	..	..	..	..	..	Glenmore Road ..	0.50	0.29	30	6	..
ter ..	..	..	..	..	..	Kingston P.W.O.	0.41	0.28	30	5	3.00
Ulster Spring ..	5.54	1.75	22	7	6.49	Plumb Point L.H.	0.31	0.31	30	1	2.32
Freeman's Hall ..	3.19	1.50	1	6	..	Clifton Pen ..	0.74	0.39	30	2	..
Albert Town ..	4.25	1.20	1	6	9.66	Quarantine Station	0.00	..	..	..	..
Lowe River ..	4.98	1.75	15	7	8.51	Spanish Town ..	..	..	..	..	..
Troy ..	1.83	1.83	1	1	..	Leigh Farm ..	..	..	..	..	..
Windsor Pen, Trel.	3.34	1.00	28	11	6.03	Hog Hole, St.	..	..	..	..	..
Medina ..	..	..	..	..	..	Catherine ..	1.18	0.42	15	5	4.34
Balaclava Police	..	..	..	..	..	Hartlands ..	1.29	0.57	29	3	5.65
Station ..	4.19	1.61	1	7	5.91	Belmont, Guana-	..	..	..	..	..
Siloah ..	5.97	1.50	16	8	8.45	boa Vale ..	1.56	0.50	30	7	..
Appleton Estate ..	3.95	1.44	1	8	6.04	Old Harbour ..	..	..	..	..	..
Magotty ..	4.48	1.49	1	8	6.80	May Pen ..	1.35	0.45	30	6	4.51
Dromilly Pen ..	..	..	..	..	..	Maysville ..	1.40	0.36	29	5	..
Spring Vale ..	..	..	..	..	..	Dry River, Vere ..	1.27	1.10	15	3	7.48
Springfield, St. Eli-	..	..	..	..	..	Toll Gate ..	1.57	0.65	8	3	..
zabeth ..	..	..	..	..	..	Woodleigh ..	..	..	..	..	..
Chesterfield, St.	..	..	..	..	..	New Yarmouth ..	0.51	0.51	15	1	2.66
James ..	..	..	..	..	..	Exeter, Vere ..	2.25	1.85	14	6	3.97
Kempshot ..	1.23	0.60	17	13	6.18	Milk River ..	2.05	1.10	8	3	4.26
Cambridge, St.	..	..	..	..	..	Clarendon Pk. Ry.	..	..	..	..	..
James ..	1.91	1.20	2	5	..	St. ..	..	..	..	..	..
Ducketts ..	..	..	..	..	..	Retrieve ..	1.24	1.00	8	3	..
New Market, Police	..	..	..	..	..	Hog Hole, S. Man.	..	..	..	..	..
St. ..	6.35	2.45	8	10	..	Stone's Hope ..	2.00	1.10	16	4	5.01
The Bog, New	..	..	..	..	..	Newport, Manches-	..	..	..	..	..
Market ..	4.87	2.25	29	10	..	ter ..	3.50	1.55	16	9	6.29
Kew Park ..	2.15	1.28	2	4	5.52	Great Valley, Man.	2.03	0.95	16	9	4.24
Montpelier ..	0.99	0.35	18	4	..	Alligator Pond ..	1.30	0.70	16	3	2.97
Burnt Ground ..	3.91	1.70	7	5	4.99	Southfield, St. Eli-	..	..	..	..	..
Knockalva ..	2.17	1.00	2	10	..	zabeth ..	3.12	1.96	16	4	..
Petersville ..	5.05	2.01	29	9	6.49	Lititz ..	2.48	1.04	23	6	..
Darliston ..	2.81	0.75	1	9	7.48	Torrington ..	2.97	1.10	16	5	6.99
Bluefields ..	2.55	0.84	29	9	7.56	Bethlehem, St. Eliz.	2.90	1.06	9	9	7.32
Whithorn ..	1.60	1.25	29	3	6.92	Santa Cruz ..	3.32	0.80	9	8	5.89
Water Works Pen	1.71	1.04	29	6	..	Pedro Plains Police	..	..	..	..	..
Fontabelle, Westm.	..	..	..	..	..	St. ..	4.28	2.34	16	5	4.01
Morgan's Bridge ..	6.94	3.55	16	8	5.30	Mountainside ..	1.30	0.70	16	4	..
King's Vale Police	..	..	..	..	..	Black River ..	0.86	0.41	29	6	4.53
St. ..	3.64	1.70	3	5	5.46	Font Hill ..	1.90	0.55	1	6	5.32
Mean ..	3.72	..	..	..	..	Mount Edgecombe	3.06	1.05	29	11	5.00
						Sweet River ..	..	..	..	..	..
						Windsor Sav-la-Mar	1.90	0.48	2	7	3.64
						Orchard ..	1.83	0.40	8	8	..
						Sav.-la-Mar ..	2.86	1.18	4	7	3.10
						Little London ..	1.39	0.24	9	6	..
						Retreat ..	3.00	1.20	8	6	4.79
						Negril Point L.H.	2.19	0.59	9	8	3.21
						Mean ..	2.13	..	..	..	..

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

DIVISIONAL AND ISLAND RAINFALL.	NOV.	
	1919.	Average.
	In.	In.
North-Eastern Division ...	10.40	13.54
Northern " ...	4.18	5.91
West-Central " ...	3.72	5.74
Southern " ...	2.13	4.56
The Island ...	5.11	7.44

SHOCKS OF EARTHQUAKE IN NOV., 1919.

Date.	Standard Time (Approx.)	Intensity.	Notes: where felt, etc.
10	3.15 a.m.	I	Mt. Holstein, Kingston and Manningsfield, Vere.

The rainfall was again below the average. The heaviest fall was 32.62 inches at Greenvale, Portland, only one inch above the average, and no rain fell at the Quarantine Station.

Montego Bay P O

MAXWELL HALL,
Government Meteorologist,
per C.M.H.



JAMAICA

WEATHER REPORT.

FOR THE MONTH OF
DECEMBER, 1919.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45° and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevensons' Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

STATIONS.	Eleva- tion.	Bar. Pressure.		Temperatures.					Extreme Temperatures.				
		7 a.m.	3 p.m.	7 a.m.	3p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
		ft.	in.	in.	°	°	°	°	°	°	°	°	°
Morant Pt. Light House	8	29.981	29.946	77.9	80.9	82.4	75.5	6.9	84.0	12*	67.0	24	17.6
Kingston	24	29.971	29.917	70.8	82.5	85.3	69.9	15.4	88.3	22	66.3	27	22.0
Negril Pt. Light House	33	29.973	29.917	72.4	83.1	85.6	69.8	15.8	89.4	12	63.6	23	25.8
Castleton Gardens	496	..	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	..	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill**	1,349	..	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Indus. School	1,400	..	..	67.6	76.6	79.7	66.0	13.7	85	13*	62	22*	23
Kempshot	1,773	29.973	29.931	68.0	72.1	75.3	67.0	8.3	80.2	28	64.3	1	15.9
Hill Gardens	4,900	..	..	..	..	..	..	..	..	..	..	..	..

STATIONS.	Elevation.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.	3 p.m.					7 a.m.	3 p.m.			7 a.m.	3 p.m.				
	ft.	°	°			in.	Mls.					L.	M.	U.	L.	M.	U.
Morant Pt. Light House	8	71.5	81	71.7	73	4.56	242	NNE	16.5	NE	66.0	2.8	1.7	0.7	2.2	2.3	0.8
Kingston	24	67.5	89	70.7	68	1.89	147	NNE	5.6	SE	9.6	1.4	1.5	0.9	2.9	1.0	1.0
Negril Point Light House†	33	67.3	85	69.9	65	1.51	215	NE	7.7	NNE	10.7	2.5	0.5	0.6	1.0	4.5	0.3
Castleton Gdns	496	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bavinton, Stony Hill	1,349	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Indus. School	1,400	65.1	92	67.2	73	3.67	..	..	..	..	..	..	..	..	..	..	..
Kempshot	1,773	66.0	95	67.5	89	4.20	185	E	5.8	ENE	5.0	3.4	0.8	1.3	2.0	3.5	0.2
Hill Gardens	4,900	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

*and on other days.

†Negril Point Light House.

**Bavinton, Stony Hill

†Hope Gardens. Bar read at 9 a.m. and 3 p.m. Wind 11 p.m. N.E. 7.8

Mean Min. temp. on grass

Earth temp. 1 ft. below surface

" " 4 ft. "

THE RAINFALL.

DEC., 1919.

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NORTH-EASTERN DIVISION.	DEC., 1919.					Liberty Hill St. Ann's Bay Seville Richmond Estate Llandovery Runaway Bay Brown's Town Alexandria Watt Town, St. Ann Home Castle Richmond Pen Bryan Castle Braco Arcadia Lancaster Harmony Hall Vale Royal Colchis Pen Georgia Long Pond Hyde Hall Steelfield Etingdon Springfield Falmouth Florence Hall Good Hope Canaan Content Guilbro Glasgow Spring Estate Montego Bay Catherine Hall Friendship Retirement King Gate Blue Hole Haughton Court Iucea Green Island	7.42 7.52 8.02 6.95 5.40 4.58 7.86 5.29 4.88 9.20 4.88 4.85 4.60 5.95 3.86 3.49 5.38 2.60 5.83 5.40 5.90 4.60 5.41 4.47 6.26 6.26 4.26 4.57 3.56 3.43 2.74 3.32 0.95 1.52 1.36	2.70 2.30 2.90 2.52 2.20 1.40 1.80 1.60 1.82 1.80 1.20 1.20 1.65 2.05 1.15 1.20 1.40 0.60 1.45 1.30 1.10 1.60 1.65 0.88 1.00 1.00 1.50 1.35 0.74 0.69 1.00 1.00 0.25 0.28 0.87	1 1 1 1 1 1 29 25 1 19 1 19 1 18 1 1 18 1 19 1 1 1 2 25 25 25 17 17 12	17 15 16 17 9 11 11 13 15 14 13 10 10 15 16 17 17 18 18 14 16 10 9 6 11 4	9.05 7.07 7.77 8.17 8.85 8.85 8.85 8.85 8.85 4.86 6.54 5.80 6.78 6.54 6.13 7.88 4.47 4.37 4.84 6.36 4.71 5.17 5.03 5.57 4.75 2.05 4.28 2.88 2.47 2.88 2.47 2.88 2.47 2.88 2.47
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.						
		Amount.	Date.								
	In.	In.			In.						
Manchioneal ..	..	..	..	..	..	..	..	..	..
Spring Valley ..	..	..	..	..	..	..	..	..	..
Bath ..	13.40	4.25	1	22	8.80	..	..	..	..
Priestman's River ..	9.20	2.40	15	12	..	..	..	..	..
Moore Town ..	33.15	6.00	1	23	25.39	..	..	..	..
Port Antonio ..	16.22	4.45	1	18	13.78	..	..	..	..
Fellowship ..	16.77	4.31	1	26	..	..	..	..	..
Johnson River ..	..	..	..	..	..	..	..	..	..
Bridge ..	9.20	2.10	1	16	5.53	..	..	..	..
Shrewsbury ..	..	..	..	..	..	..	..	..	..
Cedar Valley, St. Thos. ..	7.50	3.80	1	10	5.52	..	..	..	..
Farm Hill ..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	12.42	3.00	1	17	10.73	..	..	..	..
Chepstowe ..	..	..	..	..	..	..	..	..	..
Spring Garden ..	..	..	..	..	..	..	..	..	..
Buff Bay ..	12.86	4.09	1	21	11.81	..	..	..	..
Greenvale ..	26.49	5.10	1	22	..	..	..	..	..
Belvedere, Portland ..	14.40	3.20	1	16	..	..	..	..	..
Mt Holstein ..	16.71	3.03	1	21	17.04	..	..	..	..
Irish Town ..	6.90	..	..	..	4.28	..	..	..	..
Rose Hill ..	8.86	5.30	1	8	..	..	..	..	..
Hardware Gap ..	15.00	..	..	..	6.86	..	..	..	..
Stony Hill Ind. ..	..	..	..	..	..	..	..	..	..
School ..	3.67	2.43	1	13	4.16	..	..	..	..
Castleton Gardens ..	14.52	2.70	31	20	12.92	..	..	..	..
Lawrence Tavern ..	5.56	2.90	1	12	4.48	..	..	..	..
Cedar Valley, Red Hill ..	..	..	..	..	..	..	..	..	..
Zion Hill ..	7.57	2.93	1	12	..	..	..	..	..
Agualta Vale ..	17.78	6.75	1	27	9.65	..	..	..	..
Water Valley ..	16.02	7.12	1	22	7.97	..	..	..	..
Platfield ..	..	..	..	..	..	..	..	..	..
Richmond, St. Mary ..	11.86	4.87	1	21	9.50	..	..	..	..
Highgate ..	..	..	..	..	..	..	..	..	..
Hampstead, St. Mary ..	27.03	3.39	1	28	13.35	..	..	..	..
Guy's Hill ..	10.90	1.26	12	23	..	..	..	..	..
Lucky Hill ..	11.17	2.75	1	20	..	..	..	..	..
Rio Hoe ..	8.32	2.67	1	16	9.10	..	..	..	..
Unity Valley ..	10.22	3.53	1	20	7.66	..	..	..	..
Moneague ..	9.10	3.20	1	20	7.60	..	..	..	..
Claremont ..	6.50	2.15	17	11	8.49	..	..	..	..
Albion, St. Ann ..	10.92	2.27	1	22	8.19	..	..	..	..
Averham Park ..	8.21	1.38	16	14	..	..	..	..	..
Mean ..	12.95	..	..	..	..	Mean ..	5.56	..	..

WEST-CENTRAL DIVISION.	DEC., 1919.					SOUTHERN DIVISION.	DEC., 1919.				
	Total Fall	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
	In.	In.			In.		In.	In.			In.
Mocho, Clarendon	..	..	..	..	..	Morant Point L.H.	4.56	0.69	27	17	6.41
Spaldings	4.83	1.40	1	17	..	Pleasant Hill	6.93	1.32	11	13	..
Tan-y-bryn	..	..	..	..	..	East Prospect	9.25	1.48	27	15	4.87
Brokenhurst	5.08	1.69	2	11	..	Morant Bay	5.90	1.20	1	13	4.52
Christiana	3.94	1.18	1	16	3.68	Easington	4.40	2.35	1	7	3.31
Chudleigh	3.10	0.95	1	10	3.18	Bull Bay	1.51	1.15	1	3	1.75
Shooter's Hill	3.28	0.98	12	11	3.09	Bellevue	7.85	3.53	1	15	..
Kendal, Manchester	3.03	1.40	2	5	2.92	Gordon Town	6.70	2.35	25	4	3.37
Clifton	7.19	4.85	3	6	..	Hope Gardens	..	..	..	..	..
Marshalls Pen	5.39	3.10	2	6	3.66	King's House Gar.	..	..	..	..	..
Mandeville	5.92	2.28	2	10	3.62	Melrose	2.88	2.17	1	4	..
Carlton, Mandeville	4.17	2.07	2	6	3.62	Halfway Tree	2.59	1.47	1	4	2.12
Retford	4.25	1.46	2	11	..	Lunatic Asylum	1.94	1.51	1	5	2.03
Fairfield, Manches-	..	..	..	..	..	Glenmore Road	2.08	1.58	1	6	..
ter	..	..	..	..	..	Kingston P.W.O.	1.89	1.51	1	6	1.78
Ulster Spring	..	..	..	..	..	Plumb Point L.H.	3.10	2.10	1	7	1.60
Freeman's Hall	..	..	..	..	..	Clifton Pen	1.87	1.49	1	4	..
Albert Town	..	..	..	..	..	Quarantine Station	3.60	2.50	1	2	..
Lowe River	..	..	..	..	..	Spanish Town	3.45	1.41	1	5	..
Troy	1.15	0.70	25	3	3.58	Leigh Farm	..	..	..	..	..
Windsor Pen, Trel.	6.14	2.00	25	14	4.51	Hog Hole, St.	..	..	..	..	..
Medina	..	..	..	..	..	Catherine	3.20	1.75	1	6	2.83
Balaclava Police	..	..	..	..	..	Hartlands	4.42	1.70	12	10	2.19
Station	4.30	2.12	25	6	2.42	Belmont, Guana-	..	..	..	..	..
Siloah	2.80	1.40	25	4	3.59	boa Vale	5.73	1.90	1	11	..
Appleton Estate	4.22	2.05	25	9	3.04	Old Harbour	6.40	2.04	1	6	..
Magotty	4.46	1.56	12	5	2.98	May Pen	5.12	2.09	1	9	2.40
Dromilly Pen	..	..	..	..	..	Maysville	6.26	2.50	1	7	..
Spring Vale	..	..	..	..	..	Dry River, Vere	5.34	1.73	12	9	2.16
Springfield, St. Eli-	..	..	..	..	..	Toll Gate	2.91	1.40	1	7	..
zabeth	..	..	..	..	..	Woodleigh	..	..	..	..	..
Chesterfield, St.	..	..	..	..	..	New Yarmouth	5.40	1.43	2	8	1.97
James	5.76	1.80	12	10	..	Exeter, Vere	5.35	1.30	2	7	1.87
Kempshot	4.20	0.96	25	19	5.40	Milk River	..	..	..	..	..
Cambridge, St.	..	..	..	..	..	Clarendon Pk. Ry.	..	..	..	..	..
James	5.99	2.60	25	12	..	St.	..	..	..	..	..
Ducketts	7.56	2.15	14	12	..	Retrieve	4.50	1.30	2	8	..
New Market, Police	..	..	..	..	..	Hog Hole, S. Man.	..	..	..	..	..
St	3.75	1.49	25	9	..	Stone's Hope	6.28	2.04	12	10	2.85
The Bog, New	..	..	..	..	..	Newport, Manches-	..	..	..	..	..
Market	3.74	1.45	12	6	..	ter	5.50	2.15	12	12	4.11
Kew Park	4.39	1.11	25	12	2.54	Great Valley, Man.	3.57	1.17	2	9	2.77
Montpelier	2.64	0.50	25	8	..	Alligator Pond	2.58	1.20	2	9	2.70
Burnt Ground	4.56	1.00	12	14	3.44	Southfield, St. Eli-	..	..	..	..	..
Knockalva	3.61	1.53	25	12	..	zabeth	5.46	3.80	2	11	..
Petersville	1.92	0.75	3	7	2.72	Lititz	3.10	0.90	12	7	..
Darliston	3.08	1.50	24	8	3.47	Torrington	5.03	0.95	16	12	2.72
Bluefields	1.55	0.62	21	6	2.74	Bethlehem, St. Eliz	3.57	1.26	18	13	2.44
Whithorn	1.14	0.64	27	3	2.94	Santa Cruz	3.38	1.38	25	7	2.77
Water Works Pen	1.25	0.45	12	5	..	Pedro Plains Police	..	..	..	..	..
Fontabelle, Westm:	..	..	..	..	..	St.	5.26	2.10	2	6	1.28
Morgan's Bridge	3.67	1.30	12	8	3.28	Mountainside	..	..	..	..	..
King's Vale Police	..	..	..	..	..	Black River	2.90	0.76	19	10	2.27
St.	3.23	1.30	12	8	3.33	Font Hill	0.75	0.15	17	6	2.08
	..	..	..	..	..	Mount Edgecombe	0.93	0.37	3	7	2.44
	..	..	..	..	..	Sweet River	..	..	..	..	..
	..	..	..	..	..	Windsor Sav-la-Mar	0.66	0.23	1	5	2.48
Mean	3.62	..	..	..	..	Orchard	0.82	0.24	7	7	..
	..	..	..	..	..	Sav.-la-Mar	0.42	0.30	1	3	2.36
	..	..	..	..	..	Little London	1.12	0.86	19	6	..
	..	..	..	..	..	Retreat	..	..	..	..	..
	..	..	..	..	..	Negril Point L.H.	1.51	0.34	14	11	2.12

	..	..	..	..	..	Mean	3.72	..	..	..	..

NOTES.

COMPARATIVE TABLE OF RAINFALL.
(Based upon the "Average" Stations only.)

SHOCKS OF EARTHQUAKE IN DEC., 1919.

DIVISIONAL AND ISLAND RAINFALL.	DEC.		Date.	Standard Time (Approx.)	Inten- sity.	Notes: where felt, etc.
	1919.	Average.				
	In.	In.				
North-Eastern Division	12.95	10.28				No Earthquakes this month.
Northern	5.56	5.45				
West-Central	3.62	3.60				
Southern	3.72	2.61				
The Island	6.46	5.48				

The Island rainfall was an inch above the average, and except at the west end, the whole Island had good rains. The heaviest fall was 33.15 inches at Moore Town and the least 0.42 at Sav.-la-Mar.

Montego Bay P.O

MAXWELL HALL,
Government Meteorologist,
per C.M.H.

THE ISLAND RAINFALL, 1919.

Month.	N.E.	N.	W.C.	S.	THE ISLAND.	
					Rainfall.	Average.
	In.	In.	In.	In.	In.	In.
Jan.	9.12	6.02	5.35	4.66	6.29	3.90
Feb.	2.50	3.89	2.59	1.04	2.50	3.07
Mar.	3.05	1.28	1.46	1.91	1.92	3.34
Apr.	10.95	4.18	9.71	4.90	7.44	4.68
May	18.37	12.75	12.27	14.68	14.51	9.33
June	5.02	2.93	4.01	1.88	3.46	8.22
July	5.76	2.42	5.70	3.45	4.33	5.26
Aug.	4.20	1.96	5.29	2.73	3.54	6.89
Sept.	7.97	3.19	8.88	4.76	6.20	7.91
Oct.	7.83	3.35	10.72	8.86	7.69	10.74
Nov.	10.40	4.18	3.72	2.13	5.11	7.44
Dec	12.95	5.56	3.62	3.72	6.46	5.48
Totals	98.12	51.71	73.32	54.72	69.45	76.26

METEOROLOGICAL RESULTS for the year 1919

KINGSTON, JAMAICA.—Mean results for the year 1919. Elevation, 24 feet.

Month.	Barometer Pressure.		Temperatures.						Extremes for the Month.			Dewpoint and humidity.			Rain-fall.	Miles of Wind per diem.
	7 a.m.	3 p.m.	Mean.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Min.	Range.	7 a.m.	3 p.m.			
January	29.941	29.892	76.7	70.0	83.6	85.7	69.4	16.3	88.9	65.3	23.6	66.2	69.7	63	2.17	173.8
February	29.973	29.920	76.8	69.4	83.7	87.0	69.1	17.9	91.5	62.6	28.9	64.7	69.2	62	0.34	194.4
March	29.985	29.928	77.1	70.8	83.4	86.7	69.3	17.4	90.3	64.9	25.4	65.4	69.2	63	1.95	195.8
April	29.934	29.887	79.5	75.5	84.4	87.8	72.3	15.5	91.7	68.1	23.6	68.8	71.1	65	2.40	171.8
May	29.919	29.867	80.2	77.9	84.0	87.0	73.8	13.2	91.5	71.1	20.4	72.0	73.0	70	7.04	251.0
June	29.932	29.890	81.2	78.1	85.4	88.8	74.4	14.4	92.1	72.2	19.9	71.5	72.9	67	0.45	262.1
July	29.966	29.927	81.7	77.7	86.4	90.6	74.0	16.6	95.2	71.8	23.4	70.9	73.6	66	0.60	216.5
August	29.978	29.926	82.4	77.6	87.7	91.8	74.5	17.3	97.5	71.3	26.2	69.9	72.8	62	0.89	233.0
September	29.885	29.837	81.0	76.7	85.3	89.9	74.0	15.9	92.8	70.1	22.7	71.3	73.2	68	1.95	183.3
October	29.919	29.862	79.5	74.4	84.2	88.6	72.6	16.0	92.5	69.6	22.9	70.9	74.1	72	7.63	157.1
November	29.914	29.854	78.5	72.0	85.0	88.1	70.8	17.3	91.8	64.8	27.0	68.1	71.1	63	0.41	138.6
December	29.971	29.917	76.6	70.8	82.5	85.3	69.9	15.4	88.3	66.3	22.0	67.5	70.7	68	1.89	147.0
Total Means	29.943	29.892	79.3	74.2	84.6	88.1	72.0	16.1	92.0	68.2	23.8	68.9	71.7	66	27.72	193.7

Month.	Wind from and miles per hour.				Clouds in tenths.				Weather Conditions.	
	7 a.m.		3 p.m.		Lower.		Middle.			Upper.
	m/s.		m/s.		7 a.m.	3 p.m.	7 a.m.	3 p.m.		
January	N by E 5.7	SE by S 11.6	NNE 5.6	NNE 5.6	2.1	2.3	1.1	2.8	0.4	Rainfall about twice the average. "Norther" on 5th, 12th, 13th and 14th. S.E. squalls 34 M.P.H. on 8th. T. Storm on 9th. Sea-breeze continued throughout the nights of 9th and 10th.
February	NNE 5.1	SE by S 16.4	NNE 5.9	NNE 5.9	0.5	1.0	0.5	2.6	0.2	Rainfall one half the average. Fine generally. "Norther" on 10th and 11th. Sea-breeze continued till late on 13th, 21st, 25th and 28th. Humidity 10 below the mean.
March	N by E 5.0	SE by S 15.1	NNE 5.2	NNE 5.2	1.1	2.0	1.4	2.6	0.8	Fine generally. Rainfall nearly twice the average. S.E. wind continued till late on 1st, 5th, 6th and 7th. Distant thunder on 20th. Humidity 1 per cent. below the mean.
April	N by E 5.1	SE by S 11.2	NNE 4.8	NNE 4.8	1.8	2.9	1.3	2.1	1.9	Fine generally. Rainfall more than twice the average. S.E. wind continued till late on 11th, 15th, 17th and 30th. Thunderstorm on 15th and 25th. S.E. rain squall on 11th. Humidity 1 per cent. above the mean.
May	E 5.9	SE 18.5	E 5.0	E 5.0	2.3	2.6	1.2	1.4	2.7	Rainfall considerably over the average. S.E. wind continued till late on 7 nights and throughout the nights of 10th, 11th, 14th, 19th, 20th and 21st, 28th, 29th, 30th, and 31st. Frequent T. Storms latter part of month. S.E. Squall on 30th.
June	E 6.5	SE 20.1	E by S 7.0	E by S 7.0	1.0	0.8	1.2	1.4	5.3	Rainfall about one-tenth the average. S.E. wind continued till late on several nights. Distant lightning and thunderstorms on 14 days. Squalls on 17th and 27th.
July	N by E 4.3	SE 18.0	N by E 4.3	N by E 4.3	0.4	1.8	0.8	1.6	2.8	Fine generally. Rainfall one-third the average. Lightning and thunderstorms frequently. Rain squalls to E. on 8th and 11th. Humidity 1 per cent. above the mean.
August	N by E 4.6	SE 19.0	NNE 5.5	NNE 5.5	0.5	2.4	0.3	1.8	2.1	Fine generally. Rainfall considerably below the average and so affected the humidity. Dist. lightning and thunderstorms frequently. S.E. wind continued till late on nights of 9th, 10th, 11th and 28th. Squalls on 11th, 14th, 29th.
Sept.	N by E 4.0	SE 12.6	ENE 5.1	ENE 5.1	0.7	3.3	0.8	1.4	3.4	Fine on 9 days. Rainfall less than one-half the average. Frequent lightning and thunderstorms, squalls on 15th, 20th and 22nd. S.E. wind continued till late on 8th, 9th, 10th, 12th and 16th.
October	N by E 4.3	SE 13.0	NNE 4.7	NNE 4.7	0.7	3.7	1.2	1.9	2.8	Fine on 11 days. Rainfall nearly the average. Distant lightning and thunderstorms very frequent. Easterly wind continued till late on 22nd and 28th. Humidity 3 per cent. above the mean.
Nov.	N by E 4.8	SSE 8.5	N by E 4.5	N by E 4.5	0.8	3.1	1.3	1.4	0.5	Fine generally. Rainfall considerably below the average. Thunderstorms on 3rd, 7th, 26th. "Norther" on 12th, 19th and 23rd.
December	NNE 5.6	SE 9.6	NNE 4.6	NNE 4.6	1.4	2.9	1.5	1.0	1.0	Fine generally. S.E. squall on 28th. Humidity 4 per cent. above the mean. Rainfall the average.
Means	N by E 5.1	SE 14.5	NNE 5.2	NNE 5.2	1.1	2.4	1.1	1.8	1.9	Rainfall 78 per cent. of the average. Total No. of rainy days 75. Mean Temperature 0.5 above the average. Max. range Temperature 25.8 degrees on 9th August. Minimum Range temperature 3.3 degrees on 1st December. The Max. Temperature 97.5 on 9th August is the highest on record since 1891 when it was 96.7 degrees.

Rainfall about twice the average. "Norther" on 5th, 12th, 13th and 14th. S.E. squalls 34 M.P.H. on 8th. T. Storm on 9th. Sea-breeze continued throughout the nights of 9th and 10th. Rainfall one half the average. Fine generally. "Norther" on 10th and 11th. Sea-breeze continued till late on 13th, 21st, 25th and 28th. Humidity 100 below the mean.

Fine generally. Rainfall nearly twice the average. S.E. wind continued till late on 1st, 5th, 6th and 7th. Distant thunder on 20th. Humidity 100 per cent. below the mean.

Fine generally. Rainfall more than twice the average. S.E. wind continued till late on 11th, 15th, 17th and 30th. Thunderstorm on 15th and 25th. S.E. rain squall on 11th. Humidity 1 per cent above the mean.

Rainfall considerably over the average. S.E. wind continued till late on 7 nights and throughout the nights of 10th, 11th, 14th, 19th, 20th and 21st, 28th, 29th, 30th, and 31st. Frequent T. Storms latter part of month. S.E. Squall on 30th.

Rainfall about one-tenth the average. S.E. wind continued till late on several nights. Distant lightning and thunderstorms on 14 days. Squalls on 17th and 27th.

Fine generally. Rainfall one-third the average. Lightning and thunderstorms frequently. Rain squalls to E. on 8th and 11th. Humidity 1 per cent. above the mean.

Fine generally. Rainfall considerably below the average and so affected the humidity. Dist. lightning and thunderstorms frequently. S.E. wind continued till late on nights of 9th, 10th, 11th and 28th. Squalls on 11th, 14th, 29th.

Fine on 9 days. Rainfall less than one-half the average. Frequent lightning and thunderstorms, squalls on 15th, 20th and 22nd. S.E. wind continued till late on 8th, 9th, 10th, 12th and 16th.

Fine on 11 days. Rainfall nearly the average. Distant lightning and thunderstorms very frequent. Easterly wind continued till late on 22nd and 28th. Humidity 3 per cent. above the mean.

Fine generally. Rainfall considerably below the average. Thunderstorms on 3rd, 7th, 26th. "Norther" on 12th, 19th and 23rd.

Fine generally. S.E. squall on 28th. Humidity 4 per cent. above the mean. Rainfall the average.

Rainfall 78 per cent. of the average. Total No. of rainy days 75. Mean Temperature 0.5 above the average. Max. range Temperature 25.8 degrees on 9th August. Minimum Range temperature 3.3 degrees on 1st December. The Max. Temperature 97.5 on 9th August is the highest on record since 1891 when it was 96.7 degrees.

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